

Minnesota Medicine

Journal of the Minnesota State Medical Association, Southern Minnesota Medical Association, Northern Minnesota Medical Association, Minnesota Academy of Medicine and Minneapolis Surgical Society

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Joel C. Hultkrans, M.D.
Howard J. Laney, M.D.
511 Medical Arts Building
Minneapolis, Minnesota
Tel. MAin 1357

SUPERINTENDENT
Dorothy M. Most, R.N.
Prescott, Wisconsin
Tel. 69

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NATIONAL HEALTH LEGISLATION

SENATOR JOSEPH H. BALL
Saint Paul, Minnesota

FOR the sake of clarity and brevity, I have divided my subject into three parts:

1. What the federal government is now doing in the health field.
2. Pending legislation proposing additional federal activities and its prospects for enactment.
3. My own views as to the development of a sound federal health program.

What the Federal Government Is Now Doing in the Health Field

As most of you here know, activities of the federal government in the field of health have increased tremendously in the past few years. As a member of the Appropriations Subcommittee which handles the Federal Security Agency appropriation bill, I have watched that growth during the past four years.

The appropriation bill for the fiscal year beginning July 1, 1948, and ending June 30, 1949, is still in conference between the House and Senate, but only a few minor items in the health program are in controversy, so we know substantially what the federal program in this field is for the fiscal year of 1949. That program, including the grants to assist hospital construction, totals \$184,380,000. Of that total more than \$133,000,000 is for grants to states and local communities and research centers at universities and hospitals, while the federal government will spend directly a little over \$51,000,000.

The appropriation for research and treatment of venereal diseases totals \$17,230,000, of which

\$13,323,000 is for grants to state and local communities, some of it for the rapid treatment centers, and another large sum for various state services in this field.

Next year's appropriation in the field of tuberculosis totals \$9,291,000, of which \$6,790,000 goes in grants to state and local communities and to various research centers. In addition, the federal government spends much of its \$2,500,000 for the x-ray projects carried on in some of our larger cities.

The bill carries an appropriation of \$14,865,000 for general assistance to states, \$12,565,000 of which is for direct grants and the remainder for consultative services. The grants to states under this program go largely to bolster up various public health programs.

The Public Health Service will spend \$7,490,000 next year for direct work on communicable diseases, most of it spent in co-operation with the states and local communities on various projects such as the malaria eradication projects in some of the southern states.

The appropriation next year for the National Cancer Institute is \$14,000,000, of which \$4,150,000 is for research grants to various hospitals and research institutions. In addition the bill carries \$8,000,000 of contract authority for grants to research centers for construction of new research facilities for the study of cancer.

For the National Mental Health Institute, next year's appropriation is \$10,278,000, of which \$8,372,000 again is for research and training grants to state and local communities and research centers, and nearly \$4,000,000 for grants to states.

Under the Hill-Burton Hospital Construction

Read before the Public Health Meeting, Minnesota State Medical Association, Minneapolis, Minn., June 9, 1948, by Dr. Reuben F. Erickson, in the absence of Senator Ball.

Act, which provides for \$75,000,000 a year of federal assistance in building hospitals over the next five years, the cash appropriation for the next year is \$60,000,000 plus \$13,000,000 which will be carried over from this year's budget, with an additional contract authorization of \$65,000,000.

The 1949 bill also includes \$5,000,000 in cash and \$25,000,000 of contract authorization for construction of a clinical center and research hospital at Bethesda, Maryland. This project, which is planned for completion by July 1, 1951, is expected to provide adequate laboratory space and also hospital research facilities for clinical research on cancer, heart disease and mental diseases. It is a tremendous program and when completed will cost the federal government between 10 and 15 million dollars a year to operate.

I have not included in these figures the same \$25,000,000 which the Public Health Service spends annually in operating marine hospitals and the foreign quarantine service, because these are not the sort of public health programs that we are talking about here today.

However, these totals, while they may seem relatively small in comparison to the billions that we are appropriating for national defense and foreign assistance, nevertheless constitute a very large federal health program. It is a program that is being expanded, particularly in the field of research, as rapidly as trained research personnel are available to carry on an expanded program. I think it is an especially sound program in that the bulk of the federal funds expended on research and public health projects by the federal government are not spent directly, but are grants to state and local communities and to research institutions scattered throughout the country. I am convinced that such a decentralization leads to a much sounder and more effective program than to have the federal government undertake this work directly.

There have been a number of proposals in recent years for the federal government to appropriate huge sums, tens or even hundreds of millions of dollars to mobilize the scientific world for a blitzkrieg attack, so to speak, on some particular disease. This has been particularly true of cancer. The Congress, wisely, I believe, has resisted the pressure for such haphazard and uncoordinated attacks on the health problems of the nation. The fact is that there are not available either the research facilities or the trained research person-

nel to undertake that kind of a program, even if it were sound to do so. Instead of that, working largely through the appropriation committee, we have expanded the research programs in all major fields just about as rapidly as the funds could be economically and efficiently spent.

The Hill-Burton Hospital Construction Act, although it was passed more than two years ago, is just beginning to get into operation. The testimony before the appropriations committee indicated that only about \$2,000,000 will actually be expended in federal grants during this fiscal year out of \$15,000,000 appropriated.

I think the slowness of the hospital program to get under way was due in part to the complexity of the federal regulations in the beginning, plus the fact that all the states were required to develop their own plans before any individual projects could be approved. It is only in the past six months that most of the states have qualified for aid under the program and projects are now being approved in increasing numbers.

Although the tremendously increased costs of construction undoubtedly will cut down the volume of hospital construction under the act, and may necessitate a further extension of the law and some increase in the totals authorized, it nevertheless should contribute very substantially to closing the gap between the need for hospital beds and the facilities now available. Particularly it should assist many smaller rural communities which lack first-class hospital facilities today to build adequate facilities over the next five years.

Pending Legislation Proposing Additional Federal Activities and Its Prospects for Enactment

Coming now to pending legislation in the health field, we confront a rather involved picture. In all, there are eighteen bills dealing with health in the Senate Committee on Labor and Public Welfare, and about an equal number in the House Committee on Education and Labor.

The two bills about which most has been heard are S.545 and S.1320, both dealing with medical care to individuals. S.1320, which you may know as the Wagner-Murray-Dingell bill, proposes a comprehensive, compulsory system of federal medical care insurance under which all employed and self-employed persons would be taxed to create a central health fund. The federal government would operate the entire system and, despite the

disclaimers, the bill if it became law would socialize the practice of medicine in the United States.

S.545, introduced by Senator Taft and several others including myself, on the other hand, is essentially a grant-in-aid bill to assist states and local communities in providing medical and dental care to individuals who are unable to pay the whole cost of such care themselves. The bill is based on the philosophy that all individuals other than the indigent should make their own provisions for medical care. It further would encourage state initiative and experimentation in solving the problems of medical care for the indigent through the development of voluntary prepayment insurance plans such as the Blue Cross and Blue Shield.

Most of the other pending bills either provide for additional federal funds for research in some particular field or for the training of scientific and research personnel or for grants to states for some particular activity. Many of them duplicate provisions of either S.545 or S.1320.

One of them, S.2215, sets up a national heart institute similar to the national cancer institute. That bill has been reported out by the committee and passed by the Senate. It does not actually provide for any activity which the Public Health Service is not carrying on at present under language in its appropriation bills, but it does put research in heart disease on a par with research into cancer and mental diseases.

The committee has also approved, the Senate has passed, and the House probably will pass, the National Science Foundation bill which provides for research and training in all the sciences including medicine.

Outside of those two measures, the National Science Foundation bill and the National Heart Institute bill, both of which are expected to be enacted at this session, it does not appear likely that any other important legislation in this field will be passed this year.

Hearings on the two major bills, S.545 and S.1320, although they have been held intermittently for many months and fill several volumes of printed records, are still incomplete. And in any event, S.1320, the compulsory health insurance bill, does not stand a chance of passage by this Congress.

The whole trend in Congress in the past three years has been away from further experiments in socialization rather than toward them. Further-

more, the report of the Brookings Institution on the whole question of medical care for the individual, made for the Senate Health Subcommittee, has dampened very considerably any enthusiasm that did exist in Congress for rushing into some kind of federal program to provide medical care for individuals.

The Brookings Institution report emphasized very strongly the dangers in that course of action and exploded rather completely the myth so extensively propagandized in recent years that the United States is a nation of weak, unhealthy cripples, ridden by disease and completely lacking in adequate medical care. To anyone who has observed the health of peoples in other countries, including those which have experimented with socialized medicine, it was always apparent that the phony statistics and half-truths of which the propaganda for the Wagner-Murray-Dingell bill was built did not present a true picture of this nation's health position, but it was very helpful to have an impartial research agency like the Brookings Institution confirm that fact.

The Brookings Institution goes further and points out that the progress in health, in longevity and in the control of epidemics in the United States, with its free and voluntary medical system, has been extremely rapid and that wrecking that voluntary system by a compulsory health insurance program probably would mean retrogression rather than progress.

My Own Views as to the Development of a Sound Federal Health Program

And now, finally, where should we go from here in developing a sound federal health program?

Permit me to list briefly, in order of the priority I would assign to them, the measures which I believe the federal government should undertake in this field.

First, let me say that I am convinced that in the tremendous emphasis on medical care for the individual in the past few years, we have tended to lose sight of what should be the major concern of government in the health field, which is a positive rather than a negative approach to health. In other words, instead of developing huge programs to provide medical care for individuals who have contracted disease, we should concentrate on public, private and co-operative programs to build the health of our people in positive terms, to prevent disease rather than cure it after it has oc-

curred. That is a long-established and legitimate field for governmental activity and one which still needs strengthening.

Furthermore, with full employment today and a national income of more than 200 billion dollars, there are relatively few families who cannot afford adequate medical care if they want to give that care the priority it should have in over-all expenditures for the family.

So, in order of priority, here are the things I think Congress should do in the next few years in this field of public health:

First, Congress should try to achieve some co-ordination between the tremendous veterans program in this field and that of the Public Health Service. There is no co-ordination today, and yet the Veterans Administration is spending hundreds of millions of dollars on medical care and potentially may have the major obligation for hospital treatment at least for anywhere from five to ten million veterans within a few years.

In the field of hospital construction, for instance, the Hill-Burton bill provides for a \$750,000,000 construction program over five years. The Veterans Administration already has blueprints for a billion-dollar hospital construction program over the next five or ten years. Inevitably, with such a large percentage of our population today being veterans, the construction program for the Veterans Administration will affect tremendously the need for other private and public hospitals in any particular area. And yet today there is no direct co-ordination between the Veterans Administration hospital program and the building programs being developed by the states under the Hill-Burton Act. We have talked a great deal about centralizing health services in one federal agency, but it seems to me that without some real co-ordination between the Veterans Administration and the Public Health Service such centralization will not accomplish much.

Second, the federal government should continue to expand its research and training program, chiefly through the method of grants to state and local communities and research institutions, which will assure decentralization of the activities and prevent the building up of a huge bureaucracy which would stultify rather than strengthen research.

Third, Congress should provide for federal grants to extend standard public health services

to those localities and communities which are not financially able to carry the whole burden themselves. A bill, S.2189, introduced late this session, proposed such a program. It is probably too late for proper study before action at this session, but it should be high on the agenda for the next session of Congress.

Fourth, Congress should act on proposals which have been pending for several sessions to provide federal assistance for sewage disposal plants to clean up the pollution which has ruined so many of our fine rivers, and also to strengthen industrial hygiene programs in various states. Again such programs should be carried out through grants to the states providing for decentralized administration.

Fifth, the federal government, when funds are available within a balanced budget, should assist the states in developing and strengthening a program of health education in the public schools, possibly coupled with annual examinations of school children in order that diseases may be diagnosed early enough for effective treatment.

Sixth, as federal funds are available, Congress might provide federal assistance to states to assist in improving medical care for indigent people. Such a program should allow the states wide latitude to adopt their own plans for such care and should encourage the development of such voluntary prepayment plans as the Blue Cross and the Blue Shield systems.

In conclusion, I believe it is much wiser and sounder, in the long run, for us to go a little more slowly in expanding present federal programs and in inaugurating new ones, rather than enthusiastically rushing to spend millions every time some new panacea for the nation's health problems is proposed. If I have learned one thing in eight years in the Senate, it is that quick panaceas for serious and complicated problems are almost inevitably a snare and a delusion. They tend almost always to concentrate ever greater power in the central government, a tendency which carries grave dangers for individual freedom.

And even though some enthusiasts, looking only at the problems in the particular field, may overlook it, there are limits to the resources of the federal government. It can spend only the money it collects from you and me in taxes, and taxes can become so high that they destroy the

(Continued on Page 1015)

TEAMWORK IN THE CONSERVATION OF HUMAN RESOURCES

MORRIS FISHBEIN, M.D.

Chicago, Illinois

LESS than fifty years have passed since the time when medicine was practiced almost wholly by general practitioners with a few specialists, all of whom were concerned primarily with the diagnosis and treatment of disease. Hardly one hundred years have passed since the profession of public health was joined to the professions that render maximum service to mankind.

Today in the United States, where we have reached the highest standard of medical care and perhaps also of preventive medicine that prevails in any great nation in the world, the physician, the public health worker, the social worker, the hospital administrator, the technicians in the field of clinical pathology, sanitary engineering and entomology, the nurses, the dietitians, the record librarians and many others work together in the development of a pattern of medical care suitable to the American way of life. The care of the sick in the United States today is a full-time job not only for the 180,000 physicians who are licensed to practice and who are active in the field but for at least 2,500,000 to 3,000,000 additional people who are concerned with the prevention of disease and the care of the sick. The result of this magnificent teamwork has been the great change in the picture of the medical problem in the United States in the last fifty years.

The contrast with other nations in which similar progress has not been made is striking. In 1900 in the United States tuberculosis was captain of the men of death; today tuberculosis is sixth or seventh in the list of causes of death. The improvement has been brought about by teamwork. Before the team could apply its methods, scientific research had to make available exact knowledge on which action could be based. The determination of the cause of tuberculosis and its method of spread enabled studies of the sputum for the presence of the germ and led to the establishment of sanatoriums in which those who spread the disease could be isolated away from their families. Then came the establishment of some 800 sanatoriums in the United States where

the tuberculous are given modern methods of treatment. Subsequently came the development of artificial pneumothorax as a means of putting at rest the diseased lung. Thereafter came the use of the x-ray to detect the lesions in their earliest stages and the use of the tuberculin test for the detection of those susceptible to the disease. Thereafter came the establishment of methods of hygiene and of preventoriums for encouraging the resistance and the safety of little children. In this work the National Tuberculosis Association with its tremendous educational campaigns, financed by the Christmas Seal sale, played a leading role. And now we are in the era of chemotherapy with the use of streptomycin and various derivatives of the sulfonamide drugs as well as the BCG vaccine, with the likelihood, for the first time, that tuberculosis may be made as rare as typhoid fever in the United States in another two generations. The death rates from tuberculosis in the United States have dropped from 270 per 100,000 population to rates below 30 in Minnesota, which is among the leaders in the nation in this work. Elsewhere in the world, there are still death rates from tuberculosis of 250 to 450 per 100,000 population.

Consider how the team has functioned in this attack. Here are the combined efforts of philanthropic associations led by social workers and medical statesmen. Here are the activities of the health authorities—national, state and local—integrated into the national scheme. Here is the work of the individual physician who detects the disease in the patient and cares for him whether that care is rendered in the home, the hospital or the sanatorium. Here are applied the activities of all of the technicians already mentioned and, in addition, the physical therapists, the occupational therapists, the psychologic-social workers and the specialists in rehabilitation.

I have taken the fight against tuberculosis carried on by these organizations as a conspicuous example of medical teamwork for the conservation of human resources, but I could equally well refer to other agencies which are a part of our American scheme. Outstanding has been the contribution of the National Foundation for Infantile Paralysis, the American Heart Association, the

*Abstract of a paper presented at the Public Health Meeting, June 9, 1948, held in Minneapolis in connection with the 95th Annual Meeting of the Minnesota State Medical Association.

American Cancer Society, the National Society for Crippled Children and Adults, and special organizations devoted to the blind, to the hard of hearing, to those with multiple sclerosis, epilepsy and similar diseases. These represent the complete co-operation of the medical profession, the great philanthropists, the administrators and social workers organized to function together first in the raising of funds, second in the encouragement of research, third in the care of those who would not receive adequate care otherwise, and fourth in education of the public. These are the chief functions which these great organizations have carried on so magnificently.

The outstanding feature of American medicine is its continuation in the field of what is commonly called private enterprise. But it is the pride of the private enterprise of American medicine that it co-operates with every agency concerned equally in maintaining a high quality of medical care and the highest possible standards in the prevention and control of disease. Let us consider the evolution of our present American system of medical care. Again the service of the family doctor of an earlier day has evolved into a variety of services rendered under a variety of conditions. The general practitioner is still today the functioning unit in most medical care. Upon him devolves the duty of medical counselor for the family—the first to detect disease and the first to give proper care for the vast majority of conditions for which patients consult doctors. He also, however, must determine whether or not the patient requires the services of a hospital or a diagnostic institute. He must decide whether or not he wishes the consultative services of groups of specialists individually or in organized agencies.

In the growth of our hospitals we have a magnificent example of community effort exercised through agencies of the church, of trade organizations and of whole communities. Into this picture comes the government aid manifested by the Hill-Burton Act with the understanding always, how-

ever, that the hospital is the health center of a local community upon which must rest the responsibility for its administration and its maintenance. In the hospital the administrative board, the medical staff, the superintendent and a great variety of highly trained technical employees work as a team for the good of the individual patient. Behind the care of every sick patient are dozens of highly trained persons concerned with giving to each of the sick the best that modern medicine can give. In the operating room, in the delivery room, in the diagnostic clinic, always one sees, under the leadership of the physician who assumes the prime responsibility for the rendering of service, the specialist, nurses, interns, assistant residents and residents who are improving in their training, the anesthetist, the roentgenologist, the clinical pathologist and all of the other associates again focusing on the care of one patient the most that modern medicine can provide toward his recovery.

From the economic point of view again the problem of medical care is being worked out on the basis of the voluntary team. Here come the agencies of the type of Blue Cross insurance against the costs of hospitalization, non-profit and private insurance against the costs of sickness, surgery, obstetrics and medical catastrophes. Here through such insurance agencies and through co-operatives and group practice and similar voluntary methods all unite for the good of all and the physician co-operates in order that the quality of the service rendered may be adequate and not conditioned at the low level of economic schemes in which administration rather than scientific knowledge determines the quality of the service rendered.

In every phase of medical care in our nation today there is teamwork. It is a teamwork that has grown out of needs of man but principally out of the advancement of medical science and a recognition of the necessity for co-operation, co-ordination and integration for maximum achievement.

EPITHELIOMAS OF THE LOWER LIP

JOHN B. ERICH, M.D.

Rochester, Minnesota

THE lips are a rather common site for the development of carcinoma. Of all the malignant tumors of the entire body treated at the Mayo Clinic during 1945, 2.3 per cent involved the lips. Carcinoma in this location is definitely a disease of men. At the clinic only a trifle more than 1 per cent of the patients who have this disease are women. More peculiar, however, is the fact that about 98 per cent of these lesions are on the lower lip only.

Malignant tumors which affect the vermilion portion of the lips are for the most part squamous-cell epitheliomas. Practically all such lesions in this location arise primarily in the mucous membrane, although the vermilion border occasionally is invaded secondarily by a squamous-cell or basal-cell epithelioma which starts in the adjacent skin. In size, great variation can be expected in epitheliomas of the lips; this depends on the duration of the growth and its degree of activity. If left untreated, epitheliomas of the lip spread and involve the entire lip. Those on the lower lip may infiltrate the tissues of the cheek or chin, become attached to the periosteum of the underlying bone or actually invade the substance of the mandible itself. These neoplasms may appear to be well circumscribed, elevated and usually ulcerated lesions with indurated margins; some are deeply ulcerated and inflamed, whereas others are large fungating masses. Clinically, little difficulty is encountered in the diagnosis of epitheliomas on the lips, although some of them, particularly the more active types, cannot always be distinguished from inflammatory, tuberculous or syphilitic ulcerations. Because mere visual inspection of growths on the lips does not always lead to a definite diagnosis, at the clinic we are decidedly of the opinion that when an ulcerated lesion does not heal in three or four weeks, a specimen should be removed and examined histologically without further delay. Such a policy leads to the diagnosis and early treatment of many malignant tumors which otherwise would be neglected until they have reached a more advanced stage.

All carcinomas at the clinic are examined microscopically and the degree of malignancy is graded from 1 to 4 (Broders' classification). On study of the grade of malignancy of a large series of cases of primary and untreated epithelioma of the lower lip at the clinic, it was found that in approximately 39 per cent of cases the epitheliomas were of Grade 1 malignancy, in about 52 per cent of Grade 2, in 8.5 per cent of Grade 3, and in 0.5 per cent of Grade 4. Since it is generally accepted that malignant neoplasms of the low grade of malignancy are radioresistant it is extremely important that the grade of activity of all epitheliomas on the lips be determined, particularly when the treatment of the regional lymph nodes is under consideration.

Treatment

The removal of precancerous lesions which are nonmalignant but which are likely to lead to the development of an actual carcinoma will contribute greatly to the control of malignant lesions of the lips. Consequently, my colleagues and I recommend that all lips afflicted with thickened patches of leukoplakia, keratoses, chronic scaling, persistent inflammatory ulcers or recurring fissures receive treatment. Surgical removal of the lesion, rather than irradiation, is the treatment of choice.

The exposed part of the mucous membrane of the lip is completely excised under local anesthesia, and the mucous membrane at the edge of the wound is undermined and sutured anteriorly to the edge of the skin with interrupted fine silk sutures. Because the suture line is located along the mucocutaneous border, scarring becomes almost invisible within a period of two or three months.

The mucous membrane with the lesion removed in this fashion always is examined under the microscope. It is surprising how often evidence of the early malignant change is found, that is, how often the lesion proves to be a Grade 1 squamous-cell epithelioma *in situ*.

Many patients who have frank epitheliomas on the lower lip also may have thickened patches of leukoplakia or keratoses elsewhere on the lip. In these cases, excision of the malignant lesion can

From the Section on Laryngology, Oral and Plastic Surgery, Mayo Clinic, Rochester, Minnesota.
Read at the annual meeting of the American Society of Maxillofacial Surgeons, Minneapolis, Minnesota, October 28, 1947.

EPITHELIOMAS OF THE LOWER LIP—ERICH

be combined with removal of the exposed mucous membrane as just described. Such treatment not only removes the epithelioma but also prevents the development of other epitheliomas on the lip.

sutures and the edges of the skin with interrupted fine silk stitches. When properly executed, this operation leaves an excellent cosmetic result, since the small amount of tissue removed does not change appreciably the width of the oral fissure.

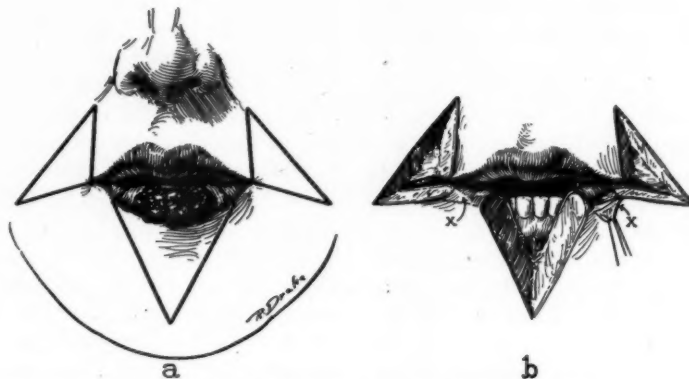


Fig. 1. Large epithelioma of lower lip. Tissue to be removed is outlined in *a*. Lateral incisions into cheeks permit advancement of tissues of cheek to median line to form a new lower lip. However, these lateral incisions also increase width of upper lip, which must be reduced to normal size by removal of triangular portions of skin and subcutaneous tissue at angle of mouth, as in *b*.

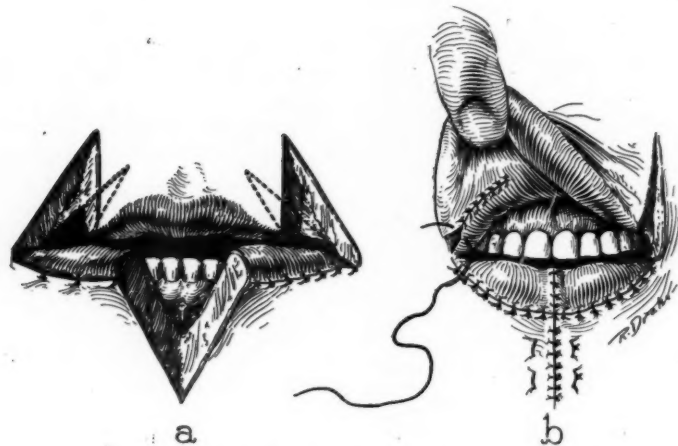


Fig. 2. V-shaped defect, *a*, of lower lip is sutured together in median line *b*. Mucosal and cutaneous edges of lateral incisions are sutured together, *a* and *b*, to form vermilion border for new lower lip. The dotted triangular areas of mucous membrane on either side of upper lip in *a*, when excised and sutured, tend to produce a more normal contour of new angles of the mouth.

In removal of epitheliomas which do not involve more than a third of the lower lip a V-shaped incision is used. After excision of the lesion the margins of the tissue are sutured together. The subcutaneous tissues, muscle and mucous membrane are approximated with catgut

After V-shaped excision of more than a third of the lower lip for large epitheliomas, more extensive plastic correction is required (Figs. 1 and 2). Although the margins of the large V-shaped defect are sutured together as just described, a greatly narrowed oral aperture results,

EPITHELIOMAS OF THE LOWER LIP—ERICH

the width of which must be increased by a plastic operation on the upper lip and cheek at both angles of the mouth. Actually, lateral incisions from the angles of the mouth out into the cheeks permit advancement of the tissues of the cheeks

results are obtained when these triangular pieces of tissue are discarded.

When a large epithelioma is confined to one side of the lip, a satisfactory reconstruction of the lip can be accomplished often by a plastic opera-

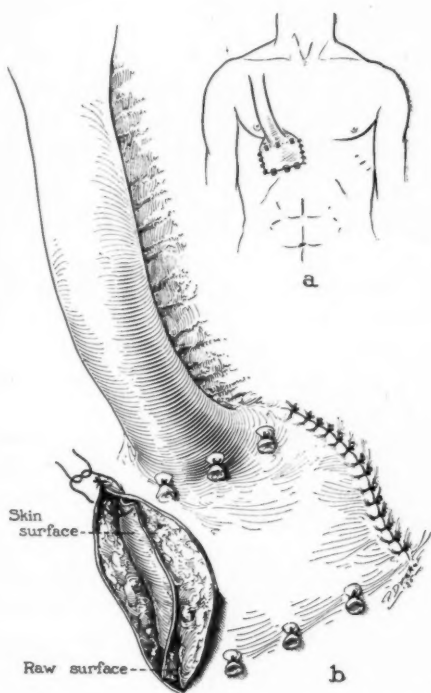


Fig. 3. Method of reconstructing the entire lower lip by means of a tube flap from the chest; position of tube on anterior portion of thorax, and lower end of flap, which is lined with a full-thickness skin graft, are shown.

to the median line. This is necessary for establishing the normal width of the lower lip. However, the lateral incisions required in the reconstruction of the lower lip also may increase the width of the upper lip (Fig. 1b). This necessitates a reduction of the upper lip to its normal horizontal dimensions by removing a triangular portion of tissue at each angle of the mouth. The end result of this plastic procedure is most satisfactory, both from a cosmetic and a functional standpoint, even in cases in which practically the entire lower lip has been removed. Some surgeons prefer not to reject the triangular pieces of cheek tissue at each angle of the mouth, but to cut them as pedicle flaps and to turn them down for reconstruction of the lower lip; however, my colleagues and I believe that better



Fig. 4. The lower end of the tube flap on chest is elevated and sutured in position to form the new lower lip. The shaded portion indicates the lining formed by the full-thickness skin graft.

tion at only one angle of the mouth, that on the same side as the lesion.

Whenever an epithelioma of the lower lip invades the tissues of the cheek, its removal cannot be followed immediately by plastic closure. Furthermore, if a large epithelioma of the lower lip has become attached to the periosteum of the mandible or has actually invaded the bone, it should be removed by surgical diathermy (electrocoagulation). The entire growth is excised by the cutting cautery, while the underlying periosteum and bone to which the growth is attached are thoroughly electrocoagulated. This form of treatment results in a sequestrum of bone which gradually separates and which can be removed in two or three months. A radical procedure of this type, we believe, is necessary to cure the malignant lesion, but it unavoidably produces a conspicuous facial defect. Reconstruction of the lower lip and chin can be carried out eventually after it is fairly certain that malignant growth will not recur. This means a delay of twelve months after operation.

For complete loss of the lower lip, plastic reconstruction is necessary. Sufficient tissue can be procured advantageously through the use of a tube flap from the chest, which will supply an abundance of skin for the restoration (Figs. 3 and 4). When a tube from the chest is used for such a purpose, the flap must be made relatively long from end to end and large in diameter. Consequently, much time is required for the establishment of proper blood supply in such a tube. After the primary operation in which the flap is elevated from the chest and tubed, it is best to wait about three months before its lower extremity is raised. Either end of such a tube flap may be employed to form the new lower lip. Since the color of the skin in the clavicular or infraclavicular regions resembles more closely that of the face than does the skin over the lower part of the chest or abdomen, the upper end of the tube flap from the chest is best from the cosmetic point of view. However, its use incurs one disadvantage, namely, that of extending the time necessary to complete the plastic procedure, because the lower termination of the tube first must be transferred to the neck before the upper part can be elevated to the face.

The portion which is to form the lip must be lined with skin. This can be accomplished by folding the end of the tube, or better, by the use of a full-thickness skin graft (Fig. 3). A vermilion border to the lip may be constructed by sliding flaps of mucous membrane from the cheeks across the upper free margin of the graft.

At the clinic, the use of radon seeds, radium plaques or external irradiation for the local primary lesion is confined generally to large epitheliomas of Grade 4 of the lips, to carcinomas of elderly individuals or to malignant lesions on the lips of patients for whom the surgical risks are extremely great.

Since metastasis to the regional lymph nodes is likely to occur, the therapeutic management of patients who have carcinoma of the lips should include not only removal of the primary lesion but treatment of the nodes in the neck as well. My colleagues and I believe that the most effective method of preventing cervical metastasis is to block off the lymph channels by surgical removal of the cervical nodes. Because the submental and submaxillary nodes are most likely to become involved, we recommend that every dissection of cervical nodes include first dissection

of submental and submaxillary nodes and also the nodes near the upper part of the jugular vein. If, on microscopic examination by the frozen section method, one or more of these nodes is found to be involved by a metastatic lesion, an immediate block dissection of the deep cervical lymph nodes is carried out on the involved side. I would like to repeat that at the clinic bilateral dissection of the submental and submaxillary nodes and the nodes along the upper part of the jugular vein is carried out as routine procedure whenever any cervical nodes are removed. A block dissection of the deep nodes is resorted to only when one or more nodes in the submental, submaxillary or upper part of the jugular regions are found to be involved. When block dissection of the deep nodes is undertaken, removal of the sternocleidomastoid muscle is advocated only when lesions of a high grade of malignancy or extensive cervical involvement by the malignant process is present.

Dissection of the cervical nodes for carcinoma of the lips then is carried out as a prophylactic measure to prevent metastasis as well as a curative form of therapy to remove cervical nodes already involved by the malignant process. Just which patients should be treated by dissection of the cervical nodes is determined by many factors. At the clinic the decision rests largely on the grade of malignancy of the primary lesion. We have found that squamous-cell epithelioma of Grade 1 practically never produces metastasis to the cervical nodes unless the lesions are badly infected or inflamed. Consequently, patients who have epithelioma, Grade 1, without any evidence of cervical extension are not subjected to dissection of the cervical nodes. However, as previously stated, an inflammatory reaction due to infection or caustic agents can augment the activity of an epithelioma; if a primary lesion of Grade 1 on the lip is badly inflamed, it then may be justifiable to consider removal of the regional lymphatics.

Squamous-cell epitheliomas of Grade 2 or 3, on the lips, are so likely to produce cervical metastasis that dissection of these nodes in the neck is a routine procedure at the clinic in all such cases. Irrespective of the size of a primary lesion of Grade 2 or 3, dissection of the cervical nodes is to be recommended, and the most satis-

(Continued on Page 999)

A SURVEY OF CESAREAN SECTION IN MINNEAPOLIS, MINNESOTA, IN 1946

CLAUDE J. EHRENBERG, M.D.

Minneapolis, Minnesota

CESAREAN section, according to recent surveys in this country, has shown some increase in incidence. More noteworthy, however, is the marked decrease in maternal and fetal mortality. In order to compare the results in this community with those in other localities, a survey of the cesarean sections performed in Minneapolis in the year of 1946 was undertaken. For comparison, only one survey made in the immediate vicinity could be found. This was a five-year study of cesarean sections in Ramsey County, Saint Paul, Minnesota, by Skinner, in which observations were made of the years from 1937 through 1942. During this period, 28,868 hospital deliveries were recorded with 434 cesarean sections, an incidence of 1.5 per cent, which varied from an incidence of 0.5 to 2.8 per cent in the different hospitals in Ramsey County. There were eight maternal mortalities, an incidence of 1.84 per cent, and the fetal mortality of 11.2 per cent.

Minneapolis has a population of approximately 500,000. During the year 1946, 15,582 live births were recorded by the City Board of Health, a rate of 30.8 per 1,000 population; 436 infant deaths and thirteen maternal deaths were recorded, resulting in rates of 27.8 and .8 per 1,000 population, respectively (Table I).

TABLE I. MINNEAPOLIS HEALTH DEPARTMENT
RECORDS, 1946

Total recorded live births.....	15,682
Rate per 1,000 population.....	30.8
Total recorded infant deaths.....	436
Rate per 1,000 live births.....	27.8
Total recorded maternal deaths.....	13
Rate per 1,000 live births.....	0.8

Of the thirteen maternal mortalities, four resulted from abortions and one from early ectopic pregnancy, leaving eight obstetrical maternal deaths.

Three hundred and three stillbirths were recorded, making the total recorded births in the city 15,985. The total number of deliveries reported by the hospitals of Minneapolis in the same year was 15,556. The number of multiple births

and the precise number of stillbirths occurring in the hospitals was not examined, but, assuming the usual incidence of multiple births, the incidence of hospital deliveries is probably about 99+ per cent.

Minneapolis has ten voluntary hospitals in which the obstetrical departments are utilized exclusively for private patients; the Minneapolis General Hospital, where obstetrics is solely a service for the indigent of the city; the University Hospitals in which the obstetrical facilities are employed largely for the obstetrical abnormalities of the semi-indigent and indigent of the state; and the Maternity Hospital, an exclusively obstetrical hospital, in which the service is approximately 60 per cent private patients, 30 per cent Community Health (partial pay) patients, and 10 per cent unmarried mothers.

Of the 15,556 recorded deliveries in the hospitals of Minneapolis in 1946, 405 were by the cesarean section method, an incidence of one in thirty-eight (2.6 per cent). Only two maternal mortalities occurred. The first, attributable to an amniotic fluid embolus, occurred during an operation for complete placenta previa, and the second, in connection with a case of fulminating preeclampsia. In addition, one postmortem cesarean section was performed on a patient whose death occurred from the bulbar type of anterior poliomyelitis a few minutes before. A living baby was delivered, but death occurred shortly after.

TABLE II.

Infant deaths per 1,000 live births (Board of Health)....	27.8
Infant deaths (cesarean section).....	16.
Infant deaths (cesarean section).....	3.9%
Infant deaths (cesarean section) per 1,000 live births....	41.1
Infant deaths (causes)	
Abruptio placenta	7.
Erythroblastosis	2.
Prematurity	4.
No reason given.....	3.
Total	16.

Infant deaths recorded with cesarean section during this period amounted to sixteen, an incidence of 3.9 per cent, or 41.1 per 1,000 live births as compared to an over-all infant death record in the city of 27.8 per 1,000 live births (Table II). An analysis of infant deaths revealed that

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TABLE III. CESAREAN SECTION DURING THE YEARS 1937-1945

Author	Locality	Years	No. C. S.	% Deaths	%
Keetel	Wisconsin	1937	1021	1.9	35
		1938	1233	2.2	19
		1939	1221	2.2	27
		1940	1439	2.5	32
		1941	811	2.7	20
Williams	Philadelphia	1937	811	2.7	20
		1938	795	2.6	13
		1939	857	2.8	11
		1940	2082	3.2	66
		1941	2216	3.4	60
DeNormandie	Mass.	1937	1984	3.1	54
		1938	2312	3.4	41
		1939	2436	3.3	52
		1940	223	2.6	1
		1941	290	4.0	2
Lee	Portland	1942	223	2.6	1
Bell	Oakland	1943	290	4.0	2
Mack					

seven occurred in connection with abruptio placenta, two were due to erythroblastosis, seven were assumed to be due to prematurity as the babies were delivered prior to the thirty-second week, and in three cases no reason was given.

If the record of cesarean sections in Minneapolis is compared to those reported from other communities in the country in recent years, the trends would seem to be parallel, namely, a slight increase in the incidence of the procedure with a reduction of maternal and fetal mortality (Table III). Further, a comparison to the Ramsey County survey shows the same general improvement in this locality as noted in other communities.

The incidence of cesarean section in the individual hospitals of Minneapolis is presented in Table IV.

Neither the number of deliveries in any hospital nor the status of the attending staff as to general practice or limited obstetrical practice seems to influence the percentage incidence. For instance, hospitals B and G are attended almost exclusively by general practitioners, while hospitals D, F and K are attended almost entirely by obstetric specialists. The high incidence of cesarean in hospital M is to be expected because of the selectivity of the patients.

Of the 405 cesarean sections performed, 240 were of the classical type, while 156 were low cervical in character. Seven cesarean hysterectomies were performed, an incidence of 1.7 per cent. This is considerably lower than reported by Reis and DeCosta in their own series and in most of the other series tabulated by them. However, it compares favorably with DeNormandie's studies of cesarean section in the State of Massachusetts, in which the incidence of the Porro sec-

TABLE IV

Delivery	Hospitals	C.S.	Per cent
2692	A	85	3.2
2627	B	77	2.8
1929	C	64	3.3
1460	D	54	3.7
1413	E	19	1.3
1161	F	7	.6
1028	G	10	1.
809	H	21	2.6
802	I	16	2.
644	J	21	3.2
365	K	4	1.
325	L	5	1.5
301	M	22	7.

TABLE V

Type of Operation	No. Cases	Morbid %	Nonmorbid %
Classical	240	67 (28)	173 (72)
Low Cervical	156	33 (21)	123 (79)
Cesarean hysterectomy	7	2 (28.5)	5 (71.5)
Vaginal	1		1 (100)
Abdominal pregnancy	1		1 (100)

tion was 1.3 per cent. Two things are noteworthy in connection with the seven cesarean hysterectomies. First, five were performed in one hospital; and second, in no case was the operation performed because of potential infection. In two cases myomas were present. In three cases the indication was given as previous cesarean section, one complicated by diabetes. One patient was a gravida 9, para 8 woman with a partial placenta previa, and in one case the indication was designated as hyperemesis gravidarum in a gravida 2, para 0 woman, aged thirty-four. In this series, there was only one vaginal cesarean section and one abdominal pregnancy. The morbidity relationship to type of operation is shown in Table V.

An examination of the qualifications of the individuals performing the operations in this series reveals that of the 405 cases, 250 were executed by qualified obstetricians either individually or in consultation, as compared to 155 done by general practitioners or surgeons. All of the Porro sections, the vaginal cesarean section and the abdominal pregnancy section, were attended by obstetricians. Of the 240 classical cesarean sections, 126 were performed by the general practice group while 114 were executed by the qualified obstetrical group, a ratio of approximately 1 to 1. In contrast, of the 156 low cervical operations, twenty-seven were done by the former and 129 by the latter groups, respectively, a ratio of 1 to 5. The above may indicate reluctance on the part of the general practitioner to undertake the low cervical operation, but it does not account for the

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high proportion of classical cesarean sections performed by the qualified obstetricians, in spite of the generally recognized virtues of the low cervical operation.

Poor records permitted only 296 of the 395 cases of classical and low cervical cesarean sections to be studied for morbidity in relationship to the status of length of labor and the condition of the bag of waters. Although the number of cases is too small to draw definite statistical conclusions, the exhibition of the trends may be suggestive, as shown in Tables VI and VII.

TABLE VI

In Labor	No. Cases	Morbid	Non-morbid
Membranes ruptured			
Classical	19	10 (53%)	9 (37%)
Low cervical	11	5 (45%)	6 (55%)
Membranes not ruptured			
Classical	25	11 (44%)	14 (56%)
Low cervical	14	1 (7%)	13 (93%)

TABLE VII

Not in Labor	No. Cases	Morbid	Non-morbid
Membranes ruptured			
Classical	10	5 (50%)	5 (50%)
Low cervical	9	3 (33%)	6 (66%)
Membranes not ruptured			
Classical	118	20 (17%)	88 (83%)
Low cervical	79%	11 (14%)	68 (86%)

Thus, in these comparisons the low cervical operation may seem to have an advantage in all conditions except when the patient is not in labor and has intact membranes.

The indications for cesarean section in this series is revealed in Tables VIII, IX, and X.

TABLE VIII

Multiple	155
Single	250
Obs.	383
Med.	22

TABLE IX

	Per Cent
Disproportion	26
Previous cesarean section	20
Toxemia	12.7
Non-convulsive	(6.3)
Convulsive	(6.4)
Placenta previa or abruptio	11
Abnormal presentation	7
Medical reason (heart, t.b., diabetes, vascular disease)	6
Sterilization	4.8
Elderly primipara	3
Previous plastic	1.6
Erythroblastosis	1.1
Others	10.8

TABLE X. INDICATIONS, LISTED AS OTHERS

Obstructing tumor	Contraction ring
Carcinoma of the cervix	Fetal distress
Ruptured uterus	Prolapsed cord
Anomaly of genital tract	Fetal malformation
Uterine myoma	Prolonged labor
Uterine inertia	

Inspection of, and comment on, the indications is not noteworthy, as it parallels generally those of other reported series.

The choice of anesthesia is disclosed in Table XI.

TABLE XI. ANESTHESIA

Cyclopropane and/or Nitrous Oxide and/or Ethylene and/or Ether	202
Local infiltration and/or Pentothal	150
Sodium and/or inhalation	41
Spinal and/or inhalation and/or local infiltration	7
Others (Ether, Ethylene)	4
Not reported	

Cyclopropane with other inhalants would appear to be the prevailing choice, with local infiltration plus additions next. Morbidity in relation to the type of anesthesia is shown in Table XII.

TABLE XII. ANESTHESIA MORBIDITY

	Morbid	Non-morbid
Cyclopropane group	55 (22%)	147 (78%)
Local infiltration group	31 (20%)	119 (80%)
Spinal group	11 (27%)	30 (73%)

There was no evidence of advantage from the standpoint of morbidity in the type of anesthesia used.

The number of sterilizations occurring in this series of cesarean sections would seem, at first glance, to be startling. However, Lull, reporting on cesarean sections in Philadelphia for the years 1931 and 1941, reveals an incidence of 15 and 22 per cent, respectively. The incidence of sterilization in connection with or following cesarean section in this series is revealed in Table XIII.

TABLE XIII

Hospital	C.S.	Sterilizations	Per Cent
A	85	19	22.
B	77	1	1.3
C	64	11	17.
D	54	10	18.5
E	19	3	15.6
F	7	1	14.
G	10	0	
H	21	7	33.3
I	16	6	37.5
J	21	5	20.
K	4	0	
L	5	2	40.
M	22	8	35.

A closer study of the records in relation to hospital incidence suggests that the indication for sterilization is a patient-physician relationship, because, with a few exceptions, the sterilizations were done in private hospitals.

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ACUTE CORONARY INSUFFICIENCY

HERMAN J. WOLFF, M.D., PH.D.

Clinical Assistant Professor of Medicine, University of Minnesota
Saint Paul, Minnesota

A BROADENING medical comprehension of coronary artery disease has rendered necessary some revision in our conceptions of the physiological abnormalities in this group of diseases and their clinical, electrocardiographic, and laboratory manifestations.

The changing concept probably owes much of its impetus to the work of the German cardiologists, which is aptly summarized by Büchner² in a volume entitled *Die Koronärinsuffizienz*, published in 1939. It is interesting to note by way of comparison that a standard and excellent American text on heart disease published as recently as 1945 mentions coronary insufficiency only in a passing manner. Examination of two recent textbooks of pathology (one published in 1944 and one in 1945) reveals only a brief mention of coronary insufficiency in one. Perhaps since the spectacular clinical identification of coronary thrombosis, dating back to Herrick³ in 1912, correlating the clinical and postmortem pathological changes has so occupied the attention of clinicians that they have failed to realize until more recently the multitudinous changes in physiological function, which can lead to symptoms of coronary insufficiency.

Initiated by the German school and fostered in this country by such men as Levy,^{4,5} Master et al.,⁶⁻¹³ Boas,¹ Barnes and his collaborators,¹⁴ a newer classification of coronary disease which embraces the various forms of acute coronary insufficiency has been developed.

Acute insufficiency of the coronary arteries implies a physiological or pathological inability of these arteries to supply the myocardium in whatever state of activity it may happen to be. Perhaps this may be simply stated as that which is necessary for the satisfaction of the myocardium in homeostasis.

A brief résumé of the conditions which may bring about acute coronary insufficiency must include physiologic effort, emotional strain, excessive use of tobacco, paroxysmal tachycardia, auricular fibrillation or flutter, heart failure, shock (surgical or nonsurgical), hemorrhage, high alti-

tude flight, severe anemia, aortic insufficiency and stenosis, syphilitic coronary arteritis, digestive shift in blood flow, insulin shock, excess adrenali, gastroenteritis with pooling of the blood in the abdominal cavity, sexual intercourse, straining at stool, extremes of temperature, hyper- and hypothyroidism, pulmonary infarction and embolism, as well as reflex effects from other viscera.

The clinical pictures, as well as laboratory findings, presented in the four main types of acute coronary insufficiency are summarized in Tables I and II. The four groups are as follows:

Group I.—Acute evanescent coronary insufficiency or angina pectoris. The term angina pectoris should be retained because the clinical picture of pain and its radiation, as well as its relation to effort, exertion, emotion, and exposure to cold, and its relief by nitroglycerine, sets apart this type of insufficiency. The physiologic mechanism is undoubtedly a disproportion between the coronary blood flow and the needs of the heart muscle.

Group II.—Acute temporary coronary insufficiency of such severity and duration as to fail to produce demonstrable changes in the myocardium but of greater duration and severity than that seen in angina pectoris.

Group III.—Acute temporary coronary insufficiency of such severity and duration as to produce clinically demonstrable myocardial changes, chiefly subendocardial necrosis, but often referred to as myocardial infarction without thrombosis.

Group IV.—Acute permanent coronary insufficiency with massive myocardial infarction (coronary thrombosis). It might be mentioned that while acute coronary insufficiency may be productive of myocardial infarction, conversely, true coronary thrombosis, in the presence of an exceptional collateral circulation, may actually fail to produce myocardial infarction.

While at first glance it may seem that the difference between Groups I, II, and III is chiefly one of duration, there are in reality many other differential features worthy of mention. As a

*Presented before the Minnesota Society of Internal Medicine, May 31, 1947.

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premise it may be stated that coronary sclerosis is at least a predisposing factor in all four groups (save perhaps occasionally in leucic aortitis or in cases of severe anemia or hemorrhage).

solute delineation may be offered, it is suggested that more protracted pain is more apt to be followed by definite change in the myocardium (Group III cases). Various other clinical fea-

TABLE I. ACUTE CORONARY INSUFFICIENCY

	Grade I Acute Evanescient Angina Pectoris	Grade II Acute Temporary Without Necrosis	Grade III Acute Temporary With Necrosis	Grade IV Coronary Thrombosis
Coronary Sclerosis	Usually Present +	Usually Present + or ++	Present + to +++	Present + to ++++
Exciting Cause	Emotion, Excite- ment, Exertion, Food, etc.	Same as for Grade I	Same as for Grade I	May be absent often at rest
Pain	Transient	Variable—Severe— often fairly prolonged	Variable, more prolonged than in II	Prolonged usually
Nitroglycerine	Relief	Variable, may relieve	Probably little relief	No relief
Nausea and vomiting	Absent	Rare	Rare	Frequent
Shock	Absent	Rare	Rare	Common
Heart sounds	Normal	Usually normal	May be normal, gallop rare	Gallop frequent, friction rub frequent
Heart rate	No change	No change usually	Tachycardia slight or absent	Tachycardia com- mon, Arrhythmia common
Failure	Absent	Rare	Rare	Common

TABLE II. ACUTE CORONARY INSUFFICIENCY

	Grade I Acute Evanescient Angina Pectoris	Grade II Acute Temporary Without Necrosis	Grade III Acute Temporary With Necrosis	Grade IV Coronary Thrombosis
Fever	None	None	Slight	Usual (101°-103°)
Leucocytosis	None	None	Slight, variable	Nearly always— moderate to high grade
Erythrocyte Sedi- mentation rate	Normal	Normal	Slight Elevation	Elevated
Urobilinogen	None	None	None	Occasionally present
E. C. G.	No change— No ECG evidence— May occasionally show:— "RST" depression "T" inversion Absent "Q" waves	"RST" Depression "T" inversion Absent "Q" waves Prompt return to previous pattern	"RST" Depression "T" inversion Absent "Q" waves Usually prompt return to previous pattern	"RST" Elevation Cove-plane "T" progressing to "T" inversion. "Q" waves usually present Slow progressive pattern
Duration	Momentary	Hours to days	Days to weeks	Weeks to months
Myocardial pathology	None	None	Sub Endocardial Necrosis Also involving Base of Papillary Muscles	Massive Necrosis involving Endocardium Myocardium Pericardium
Compensable	No	Yes (?) (Master)	Yes (?) (Master)	No (?)

The exciting cause in the first three groups is definitely at variance with that to be found in Group IV, and this is especially important with regard to possible compensability of the various types of coronary insufficiency. The duration of pain is also of some significance, particularly in differentiating Groups II and III. While no ab-

tures as seen in the table are relatively self-explanatory. With reference to physical and laboratory findings as shown in Table II, the presence of fever in acute insufficiency would definitely suggest a Grade III type of change; and more especially, elevation of the leukocyte count and sedimentation rate in the Group III cases

ACUTE CORONARY INSUFFICIENCY—WOLFF

serves to differentiate them from the Group II cases.

The further differentiation of Group III cases from Group IV cases is accomplished by the elec-

sification which is here presented, this would include cases in Groups II and III, which are apt to come on as a result of strenuous physical exertion; and while the subject certainly can be

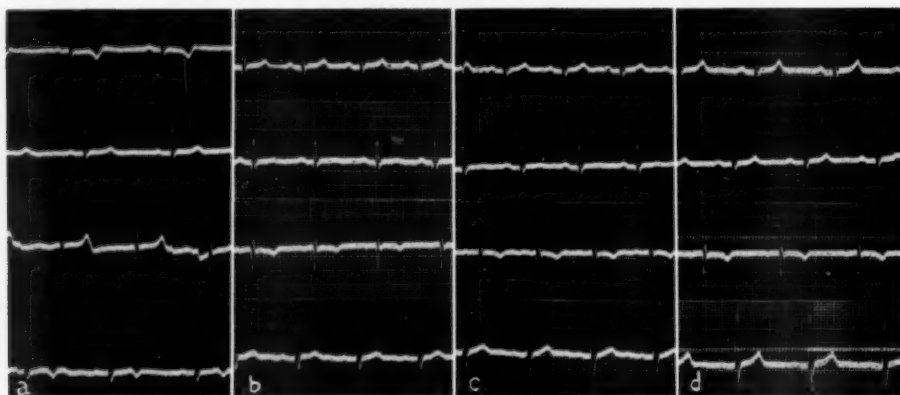


Fig. 1.

TABLE III

L.V.H.	E.C.G.	Pulse	Temperature	Blood Pressure	White Blood Count	Erythrocyte Sediment Rate (West) m.m.	Pain	Dyspnea
9-30-44	I*	60	98.6	128/88	15,200	10	Severe 3 hrs.	Present early
10- 1-44		76	98.8	124/86	12,800	8	0	0
10- 2-44	II*	84	98.6	128/86	9,550	12	0	0
10- 3-44	III	88	99.4	132/88	6,700	27	Severe to arms	0
10- 7-44		80	98.4	126/84	7,900	20	0	0
10- 9-44		80	98.6	128/86	10,200	23	0	0
10-11-44	IV*	88	99.0	134/88	9,500	31	0	0
10-13-44		82	99.2	140/88	10,600	43	0	0
10-16-44	V	80	98.0	136/86	9,200	25	0	0
10-21-44	VI*	78	98.6	140/90	9,600	29	0	0
10-23-44		76	98.2	142/90	8,400	20	0	0

trocardiogram. The changes so characteristic of coronary thrombosis are not found in any of the insufficiency groups of lesser grade; and this is, of course, compatible with the pathologic changes which are characteristic of coronary thrombosis, namely, a through and through necrosis of the myocardium with involvement of endocardium, myocardium, and pericardium. In contradistinction, Group III cases will show a subendocardial necrosis due to failure of oxygenation at the terminal ends of the subendocardial vessels. These same changes are found in the bases of the papillary muscles. Similar changes are not seen in Groups I and II.

With reference to compensation, which was mentioned earlier, it is interesting to note that Master considers the acute insufficiencies, not due to thrombosis, as compensable. In the clas-

debated almost *ad infinitum*, there seems to be a moiety of truth in the fact that many coronary thromboses occur during inactivity, whereas most of the other insufficiency syndromes have a definite precipitating factor which may be associated with compensable activities.

With this classification in mind, a survey of two illustrative cases would seem to be in order.

Case Reports

Case 1.—The patient, whose essential data are summarized in Table III, was a thirty-seven-year-old, white, married man, who presented himself at the Charles T. Miller Hospital in Saint Paul on September 30, 1944, with a history of acute, severe, and moderately prolonged retrosternal pain, which had been present for three hours at the time of admission. Radiation into both shoulders and arms had occurred since early morning. The electrocardiograms which follow sequentially in Figure 1 are those which have been indicated

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with an asterisk on Table III. It will be noted that the initial electrocardiogram (Fig. 1a) shows a rather bizarre picture consisting of a sharp inversion of T1 with a slight depression of ST1 and definite inversion of T4, which has a slightly positive component as well.

Unfortunately, prior tracings are not available, so that the eventual establishment of the Q3 T3 pattern must be considered to be either a residual of a previous thrombosis or as evidence of recent thrombosis. The way in which these changes appear, however, suggests more

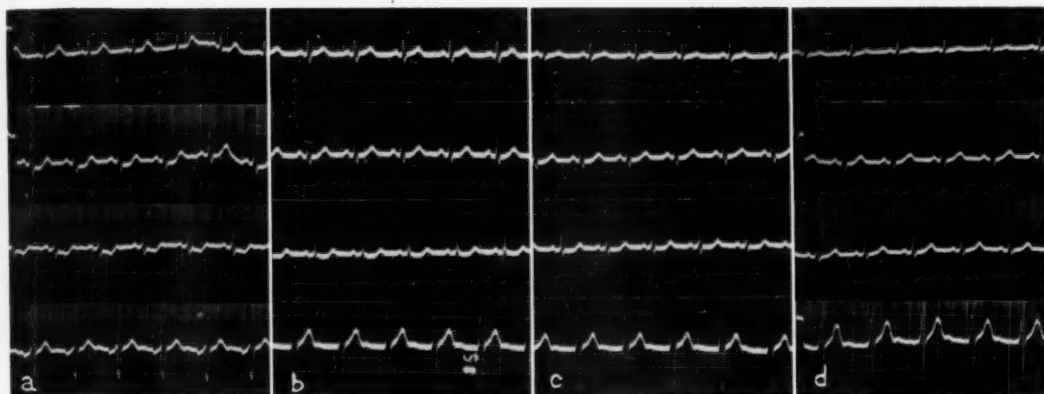


Fig. 2.

TABLE IV

R.G.M. (I)	E.C.G.	Pulse	Tempera- ture	Blood Pressure	White Blood Count	Erythro- cyte Sediment Rate (West) m.m.	Pain	Dyspnea
1-31-45	I*	104	97.0	148/102	9,850	9	Severe	Slight
2- 1-45	II*	100	97.4	170-158/ 100-94	9,100	5	0	0
2- 2-45		100	99.0	142-132/ 98-84	11,050		0	0
2- 3-45	III*	84	99.0	148-144/ 92-90	10,300	9	0	0
2- 5-45	IV	80	98.2	140-130/ 98-80	6,100	12	0	0
2- 7-45	V	74	99.0	124-122/76	7,950	8	0	0
2-23-45	VI*	78	98.4	142/84	9,350	3	0	0
4-25-45	VII	80	98.2	146/84		3	0	0

These findings are characteristic of acute insufficiency and well satisfy the Levy requirements for a diagnosis of coronary insufficiency. These spontaneous changes are in marked contrast to those seen in the next electrocardiogram (Fig. 1b), made forty hours later, wherein a complete reversal to a positive T1 and T4 has taken place; and we are now confronted with a Q3 T3 pattern. These same changes are present in the following two electrocardiograms (Fig. 1, c and d) which were taken twelve and twenty-four days after the initial tracing. It is interesting to recollect that there was a very slow change in the sedimentation rate, with no definite elevation occurring for five days, and a rather more marked elevation occurring at the end of two weeks. The interpretation of these tracings may be made along either one of two definite and probably acceptable variants. However, there can be little doubt that the original tracing must be considered as an excellent example of acute coronary insufficiency. Unfor-

strongly the presence of a previous disturbance which makes the Q3 T3 pattern possible. One is forced to infer that the acute insufficiency present at the time of admission, together with the rather definite changes in the sedimentation rate, make this an instance of Group III coronary insufficiency, namely acute coronary insufficiency associated with definite subendocardial necrosis. This patient remained in the hospital four weeks, and was clinically well with the exception of a psychosomatic residue upon his discharge.

Case 2.—This case is of interest because in this patient two episodes, the first typical of Group II and the second typical of Group IV, occurred at an interval of approximately twenty months. The significant data for the Group II episode, or acute coronary insufficiency without necrosis, are shown in Table IV. The patient is a forty-one-year-old, white, married man, who pre-

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sented himself at the office on January 31, 1945, with a history of retrosternal pain radiating over his entire chest into the left shoulder, and which lasted one hour. It occurred originally at 9:00 o'clock in the morning, and returned at 2:00 o'clock in the afternoon and re-

Table V were obtained. At this time pain in the chest was not an outstanding feature. The attack was ushered in by syncope, and the original tracing (Fig. 3a) made in the office showed changes very suggestive of a posterior infarction due to coronary thrombosis. Although

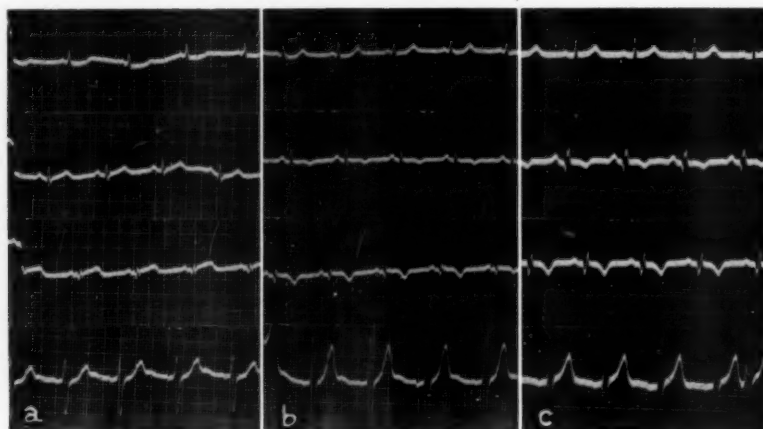


Fig. 3.

TABLE V

R.G.M. (II)	E.C.G.	Pulse	Temperature	Blood Pressure	White Blood Count	Erythrocyte Sediment Rate (West) m.m.	Pain	Dyspnea
9-17-46	IX*	84	98.6	122/70	10,250	5	Mild 9-16-46 with syncope	Slight 9-16-46
9-19-46	X*	64	99.8	142-116/84-70	11,050	30	0	0
9-20-46		72	98.2	130-122/80-76	8,350	31	0	0
9-23-46	XI*	74	98.8	128/84	10,150	37	0	slight
9-26-46		66	98.2	130/84	7,000	20	0	slight
9-30-46	XII	66	98.4	136/84			0	0
10- 1-46		72	98.2	142/86	5,490	9	0	0
10- 4-46	XIII	70	98.0	142/84	8,650	6	0	0

maintained for slightly longer than one hour. He noticed perspiration and some shortness of breath at the time. Those electrocardiograms marked with an asterisk in Table IV are illustrated in Figure 2. It will be noticed that at no time was there a marked leukocytosis and that the sedimentation rate remained normal throughout the entire course. The initial electrocardiogram (Fig. 2a) shows a well defined depression of ST2 and ST3 which changes satisfy the Levy postulates for acute coronary insufficiency. The prompt return to normal as shown in the second electrocardiogram (Fig. 2b) is striking; and the maintenance of a normal state as shown in the following two tracings (Fig. 2, c and d) is equally striking. This patient felt entirely well twenty-four hours after the episode and remained so for the ensuing twenty months, when the data shown in

the leukocyte count failed to demonstrate much change, the sedimentation rate certainly was significant. The following electrocardiograms (Fig. 3, b and c) show the progress of this very evident myocardial infarction. This case is most interesting and instructive in that it demonstrates marked evidence of coronary insufficiency without necrosis occurring along the distribution of the posterior coronary artery; and twenty months later a second attack was attended by findings of a definite thrombosis or complete occlusion in the distribution of this same vessel.

In summary, it would seem advisable to bear in mind that acute coronary insufficiency is a condition which is limited neither to the acute

evanescent changes of angina pectoris on the one hand, nor to the cataclysmic changes of coronary thrombosis on the other. From the multitude of clinical situations between these extremes, it has seemed possible to formulate two categories. In these subdivisions, the one without and the other with necrosis, there are two clinical syndromes founded upon the same premise, the Group III cases being productive of subendocardial necrosis and sedimentation rate changes, together with a longer clinical course and somewhat more severe symptomatology than that seen in the Group II cases. It would seem entirely possible, and probably advisable, to classify any symptomatic disturbance of the coronary physiology into one of these four groups, and by so doing, to express in definite terms a clinical picture or syndrome immediately understandable to all clinicians.

References

1. Boas, E. P.: Coronary insufficiency. *M. Clin. North America*, 26:907-918, (May) 1942.
2. Büchner, F.: *Die Koronärinsuffizienz*, Dresden: Theodore Steinkopf, 1939.
3. Herrick, James B.: Clinical features of sudden obstruction of the coronary arteries. *J.A.M.A.*, 59:2015-2020, (Dec. 7) 1912.
4. Levy, R. L.: Clinical types of coronary insufficiency and their recognition. *New York State J. Med.*, 43:1836-1840, (Oct.) 1943.
5. Levy, R. L.; Williams, N. E.; Bruenn, H. G., and Carr, H. A.: "Anoxemia test" in diagnosis of coronary insufficiency. *Am. Heart J.*, 21:634-656, (May) 1941.
6. Master, A. M.: The two-step test of myocardial function. *Am. Heart J.*, 10:495-510, (April) 1935.
7. Master, A. M.: The electrocardiogram and x-ray configuration of the heart. Page 364, Philadelphia: Lea and Febiger, 1939.
8. Master, A. M.: Coronary heart disease; angina pectoris, acute coronary insufficiency, and coronary occlusion. *Ann. Int. Med.*, 20:661-674, (April) 1944.
9. Master, A. M.: Progress in acute coronary artery diseases; acute coronary artery insufficiency with and without acute occlusion. *New York Med.*, 2:19-22, (May) 1946.
10. Master, A. M.; Friedman, R., and Dack, S.: The electrocardiogram after standard exercise as a functional test of the heart. *Am. Heart J.*, 24:777-793, (Dec.) 1942.
11. Master, A. M.; Grishman, A.; Dack, A., and Jaffe, H. L.: Nomenclature of coronary artery disease; differentiation of angina pectoris, coronary insufficiency, and coronary occlusion. *J. Mt. Sinai Hosp.*, 8:820-828, (Jan.-Feb.) 1942.
12. Master, A. M.; Gubner, R.; Dack, S., and Jaffe, H. L.: Differentiation of acute coronary insufficiency with myocardial infarction from coronary occlusion. *Arch. Int. Med.*, 67:647-657, (March) 1941.
13. Master, A. M.; Jaffe, H. L.; Dack, A., and Grishman, A.: Coronary occlusion, coronary insufficiency and angina pectoris; clinical and post-mortem study. *Am. Heart J.*, 27:803-816, (June) 1944.
14. Pruitt, R. D.; Burchell, H. B., and Barnes, A. R.: The anoxia test in the diagnosis of coronary insufficiency. *J.A.M.A.*, 128:839-845, (July 21) 1945.

A SURVEY OF CESAREAN SECTION IN MINNEAPOLIS

(Continued from Page 989)

Discussion

Recently Mack stated, "With the cognitant increased incidence of cesarean section on the one hand and the lowered mortality on the other, one might well ask whether too many sections are now being performed or whether too few took place in former years." A comparison of the results of cesarean section in Minneapolis in 1946 to the results in Ramsey County from 1937 through 1942, may to some extent answer both of these questions in the affirmative. The high fetal mortality in the Ramsey County series could be interpreted as an unnecessary delay for the operation. On the other hand, study of the maternal deaths individually in this same series might deny this conclusion. Rather, it would suggest an improvement in surgical techniques, methods of anesthesia, and the more recent advantages of the sulfonamides and especially the antibiotics.

Summary

1. A survey of cesarean sections in Minneapolis for the year 1946 is presented and compared to an earlier one in an adjacent area.

2. Roughly the results parallel those of surveys made in other localities in this country, in that the incidence is somewhat increased but the maternal mortality is significantly lower.

3. There is a lower morbidity from the low cervical type of operation, but the choice of anesthesia seems of no importance in this connection.

4. Cesarean section in Minneapolis, as revealed in a study of the cases in 1946, shows a higher maternal and infant mortality when compared to normal delivery for the same period. However, it must be concluded that cesarean section is done for relatively definite indications that jeopardize the life of the mother or the baby, a situation that cannot be analyzed statistically when related to normal vaginal delivery.

100 E. Franklin Avenue

References

1. Bell, T. F.: Cesarean sections in Oakland—1943. *West. J. Surg.*, 53:139-145, (May) 1945.
2. DeNormandie, R. L.: Five-year study of cesarean sections in Massachusetts. *New England J. Med.*, 227:533-538, (Oct. 8) 1942.
3. Keetel, W. C.: Report on cesarean sections and hospital deliveries occurring in Wisconsin—1934 to 1940, inclusive. *Wisconsin M. J.*, 41:302-310, (April) 1942.
4. Lee, G. P.: Cesarean section in Portland, Oregon, during 1942. *West. J. Surg.*, 51:330-334, (Aug.) 1943.
5. Lull, C. B.: Survey of cesarean sections in Philadelphia; comparison between years 1931 and 1941. *Am. J. Obst. & Gynec.*, 46:314-321, (Aug.) 1943.
6. Mack, H. C., and Siddall, R. S.: Personal communication.
7. Reis, R. A., and DeCosta, E. J.: Cesarean hysterectomy. *J.A.M.A.*, 134:775-779, (June 28) 1947.
8. Skinner, A.: Five-year survey of cesarean sections in Ramsey County, Minnesota. *Minnesota Med.*, 27:124-127, (Feb.) 1944.
9. Williams, P. F.: Cesarean section survey in Philadelphia. *Am. J. Obst. & Gynec.*, 40:866, (Nov.) 1940.

PRIMARY IDIOPATHIC SEGMENTAL INFARCTION OF THE GREATER OMENTUM

CHARLES S. JOSS, M.D., and JOSEPH HYDE PRATT, M.D.

Rochester, Minnesota

THE infrequent occurrence of primary idiopathic segmental infarction of the greater omentum was revealed when, in a review of the available literature,^{6,9} only twelve authentic instances of the condition could be found.³ The present report is intended to bring attention to this apparently rare pathologic condition, which is of surgical significance because its symptomatologic features are similar to those of other acute intra-abdominal lesions. We wish, also, to report such a case in which the lesion was seen at the Mayo Clinic recently.

Antecedent Studies (Table I)

Johnson, in 1932, apparently was the first to record primary segmental infarction of the greater omentum. In his case the patient was a man, sixty-three years old, for whom the diagnosis of acute suppurative appendicitis with localized peritonitis had been made. At surgical exploration a portion of the greater omentum was found to be much thickened, infiltrated and partially gangrenous because of thrombosis in the omental vessels. An uneventful convalescence and recovery followed resection of the gangrenous part of the omentum. This case was complicated by the fact that the tip of the omentum was adherent to the scar resulting from repair of an old hernia, but the vessels were not twisted in their course at any point. Johnson said he thought that the etiologic factors leading to thrombosis of these vessels may include slowing of the blood stream in the omentum, first by the fixation of the organ to the old abdominal scar and, second, by the arteriosclerotic condition of the walls of the vessels, as was found at pathologic examination. Aortic regurgitation had also been noted at the physical examination.

Hines, in 1934, reported a case in which hemorrhagic infarction of the greater omentum involved the major portion of the omentum, but in this case the infarction was secondary to thrombosis of the portal vein. For this reason, Hines' case has not been included in the present review of

this subject. Berger has reported a case of thrombosis of the left gastro-epiploic vein which resulted in a hemorrhagic infarction of the left third portion of the greater omentum. In this case the thrombosis in question was not associated with other venous thromboses in the abdomen, but the patient had cardiac insufficiency secondary to arteriosclerotic, hypertensive, syphilitic heart disease of several years' duration, which may have been a contributory factor to the thrombosis. Validity of the inclusion of this case in this series is debatable.

Pines and Rabinovitch have reported a series of six cases of apparently true primary idiopathic segmental infarction of the greater omentum which were collected from the files of the Jewish Hospital, Brooklyn, New York, from 1915 to 1939. This is the largest single series of such cases recorded in the literature. All patients in this series preoperatively had received the diagnosis of acute appendicitis, and all recovered after surgical exploration and resection of the infarcted portion of omentum. These authors pointed out that the symptoms of omental infarcts, in general, mimic those of acute appendicitis, with pain in the right lower quadrant of the abdomen being a more or less constant feature. The disproportion between abdominal tenderness, duration of symptoms and abdominal rigidity was pointed out as another striking feature of the syndrome of this disease. The abdomen usually is widely and definitely tender to deep palpation, but abdominal rigidity is not nearly so marked as might be expected when the possible duration of the complaint and the definite tenderness are considered. The authors also commented on marked hyperesthesia of the skin as an outstanding symptom which is not commonly seen in other acute intra-abdominal lesions. They felt that the mechanism involved in the formation of omental thrombi is similar to that produced experimentally on stretching a vein, with subsequent thrombosis caused by the injury of the endothelial lining of the vein; thus, the condition is secondary to some form of trauma.

Bang-Dietrichson recorded a case in which a woman, forty-six years old, with apparent pri-

Dr. Joss is a Fellow in Surgery, Mayo Foundation, and Dr. Pratt is in the Division of Surgery, Mayo Clinic, Rochester, Minnesota.

INFARCTION OF THE GREATER OMENTUM—JOSS AND PRATT

TABLE I. PRIMARY IDIOPATHIC SEGMENTAL INFARCTION OF THE GREATER OMENTUM: CASES REPORTED IN LITERATURE

Reported by	Patient		Leukocytes, Per cu. mm.	Diagnosis		Course
	Age	Sex		Preoperative	Postoperative	
Johnson, 1932	63	M	15,400	Acute appendicitis	Hemorrhagic infarct of omentum	Recovered
Pines and Rabinovitch, 1940	63	M	12,400	Acute appendicitis	Infarct of omentum	Recovered
	53	F	10,000	Acute appendicitis	Infarct of omentum	Recovered
	40	M	18,000	Acute appendicitis	Infarct of omentum	Recovered
	52	M	13,500	Acute appendicitis	Infarct of omentum	Recovered
	37	M	9,800	Acute appendicitis	Infarct of omentum	Recovered
Bang-Dietrichson, 1941	47	F	9,000	Acute appendicitis	Infarct of omentum	Recovered
	46	F	Not recorded	Acute appendicitis	Hemorrhagic infarct of omentum	Recovered
Totten, 1942	27	M	Not recorded	Acute appendicitis	Hemorrhagic infarct of omentum	Recovered
	29	M	15,500	Perforated duodenal ulcer or perforated acute appendicitis	Hemorrhagic infarct of omentum	Recovered
Durando, 1945	58	F	Not recorded	Acute appendicitis	Hemorrhagic infarct of omentum	Recovered
MacKenzie and Small, 1946	29	M	17,620	Acute appendicitis	Hemorrhagic infarct of omentum	Recovered
Present author	40	F	13,800	Acute appendicitis Pregnancy	Infarct of omentum Pregnancy	Recovered

Primary hemorrhagic infarction in the greater omentum, was treated successfully by resection of the infarcted portion. His patient had had heart disease for many years, which may have been a contributory factor in the formation of a thrombus.

Schottenfeld and Rubenstein reported a case in which acute abdominal pain developed in a seven-year-old boy three days after he had sustained a kick to the abdomen by a playmate. This boy was thought to have acute suppurative appendicitis, but surgical exploration revealed a hemorrhagic omentum, with infarction of a portion of it. Uneventful recovery followed resection of the diseased portion of the omentum. In this case the hemorrhagic infarction clearly was secondary to trauma, so that inclusion of the case in this series of cases of idiopathic segmental infarction is open to question.

Totten reported two cases in which primary segmental infarction of the greater omentum was clear-cut and unaccompanied by complicating factors. The condition of one of his patients had been diagnosed as "acute appendicitis" and that of the other as either "subacute perforation of a peptic ulcer" or "acute appendicitis with perforation and local peritonitis." At operation each patient was found to have an infarct of a localized, distal segment of the greater omentum, without a coincident intraperitoneal pathologic condition. The author pointed out that in these cases the omentum was thick and fatty, a con-

dition which in his experience is in marked contrast to that in the majority of cases of omental torsion, in which he had found the omentum to be thin, with a scanty amount of fat. He offered as a possible explanation of the cause of this condition the fact that the strain on the thin-walled veins between the stomach and omentum is increased at the time of vascular congestion incident to the ingestion of a full meal. During this period, additional strain from increased intra-abdominal tension, incident to straining, coughing, sneezing or lifting, may be sufficient to cause primary rupture of the dependent veins of the omentum, with hemorrhagic extravasation and secondary thrombosis. In support of this thesis, he said that one of his patients gave a history of heavy work in the handling of boxes weighing approximately 120 pounds (54.4 kg.) shortly after the noon meal and just prior to the onset of his abdominal pain.

Durando has reported a case of apparently authentic segmental infarction in which the patient recovered uneventfully after surgical resection of the involved segment of omentum. This author likewise pointed out the similarity of features of infarction of the greater omentum to those of acute appendicitis, and in respect to the former lesion, stressed the benign course leading to recovery after resection of the involved portion of omentum.

In 1946, MacKenzie and Small reported the most recently published case of this condition.

Their patient was a twenty-nine-year-old white man in whom generalized abdominal pain developed after the ingestion of 1 pound of cheese. Diarrhea first developed, and was followed by localized pain in the right lower quadrant of the abdomen. This pain later became more severe in the right upper abdominal quadrant. A diagnosis of "acute appendicitis" was made. At operation the appendix was found to be normal, but a large hemorrhagic necrotic mass, 11 by 7 by 4 cm., involving the right terminal portion of the greater omentum, was encountered. This exhibited venous thrombosis, with segmental infarction of the vessels, on microscopic study. The authors pointed out that this condition must be borne in mind when observations of the appendix do not explain the clinical symptoms present. They considered constipation to be of frequent occurrence among such patients, whom they described as being "bowel conscious."

Report of a Case

A white housewife, forty years old, was referred to the clinic on January 10, 1943, because of abdominal pain in the right lower quadrant of forty-eight hours' duration. Review of her history disclosed that she had been married for twenty years and had been pregnant three times and delivered normally in each instance. She had made one previous visit to the clinic in the preceding year, at which time a diagnosis of "cardiospasm with moderate dilatation of the esophagus" had been made and dilatation of the cardia had been carried out. Her menstrual history was characterized by regular periods with a twenty-one day interval, and her last menstrual period had occurred three months before the onset of the present illness. The family history was irrelevant to her condition.

Two days before the patient's entry, abdominal pain had developed in the right lower quadrant whenever the patient arose. This pain was constant, nonradiating, and was not accompanied by nausea. The pain persisted throughout the day, although the patient was ambulant, her appetite was good, and her distress was not too annoying. During the night of the date of onset of the pain she occasionally was awakened by the abdominal pain. On the next day the abdominal pain continued to be steady, sharp and nonradiating, in the right lower quadrant of the abdomen. The patient had regular bowel movements and had noted no other symptoms except that the pain seemed to be worse on motion of the body. On the day of her admission the patient had been seen by her local physician, who had made a diagnosis of "acute appendicitis" and had referred her to the clinic for treatment.

Physical examination revealed a well-developed and well-nourished white woman who was apprehensive and crying. Her systolic blood pressure was 128 mm. of mercury; the diastolic pressure was 76 mm. of mercury.

Her pulse rate was 90 beats per minute. Her temperature at admission was recorded as being 98.6° F. (37° C.) Abdominal examination disclosed point tenderness of grade 2 (on the basis of 1 to 4, in which 4 is most severe) in the right lower abdominal quadrant, and voluntary spasm and rebound in the same area. Vaginal examination revealed the cervix to be soft and freely movable. The uterus was felt to be the size of a uterus two to three months pregnant. The adnexa appeared to be normal. Rectal examination revealed slight tenderness of the right lateral wall. Results of the remainder of the examination were within normal limits.

Examination of a catheterized specimen of urine revealed it to have a specific gravity of 1.016. Albuminuria of grade 1 (on a basis of 1 to 4) was present. Microscopic examination of the sediment of a specimen of centrifuged urine disclosed an occasional erythrocyte and 10 leukocytes per field, under low-power magnification. White blood cells numbered 13,800 per cubic millimeter; 82 per cent were polymorphonuclear neutrophils, 16 per cent were lymphocytes, 1 per cent were monocytes and 1 per cent were eosinophils.

A preoperative diagnosis of probable atypical acute appendicitis as well as intra-uterine pregnancy was made. Surgical exploration was advised and accepted.

Abdominal exploration, through a primary lower right rectus incision, was carried out on the day of the patient's admission. Spinal anesthesia with procaine hydrochloride was employed. A portion of the greater omentum, 3 by 3 cm., was found to be the site of an acute inflammatory reaction, and was excised. The remainder of the abdominal exploration disclosed nothing significant except for the enlarged uterus, which extended well above the symphysis pubis, was rather soft, and indicated a normal pregnancy. The appendix was removed and the abdomen was then closed. Five grams of crystalline sulfathiazole was left in the peritoneal cavity.

Microscopic examination of the excised omental tissue disclosed infarcted omentum. The appendix showed signs of chronic inflammation.

Convalescence was uneventful. The patient was dismissed from the hospital on the twelfth postoperative day, at which time she had no complaints.

Comment

Review of the cases of primary idiopathic segmental infarction of the greater omentum in the literature does not reveal any significant features which might be of aid in a definite, preoperative differential diagnosis between the lesion and acute appendicitis or other acute intra-abdominal lesions. Undoubtedly, this type of infarction of the omentum occurs more frequently than is indicated by the number of reported cases. In many instances it probably is not recognized because of the inability of the surgeon to carry out thorough exploration of the abdomen when a small McBurney incision has been made with the expectation that the pathologic process is situated in

the appendix or terminal portion of the ileum. It is not unlikely that a small percentage of patients thought to have "acute appendicitis" which is atypical and consequently is treated by medical measures, in reality have infarction of the greater omentum. We wish to add our voice to that of others who have suggested that this pathologic entity should be considered whenever surgical exploration fails to reveal pathologic changes in the appendix or other suspected organ or structure to account for the clinical symptoms, and that the omentum be inspected for evidence of a lesion or lesions which might explain such symptoms.

The course of infarction of the greater omentum not treated surgically undoubtedly is benign. When operation is not performed, the omentum probably adheres to adjacent organs or structures. Such early, fine adhesions between omentum, parietal peritoneum and bowel have been found at operation in cases of segmental infarction of the greater omentum.

Summary

A case of primary idiopathic segmental infarction of the greater omentum has been presented, and twelve previously reported cases in the literature have been reviewed. Apparently there are no

diagnostic criteria by which a preoperative diagnosis of the lesion can be definitely made. All the patients in reported cases have recovered uneventfully after excision of the infarcted segment of omentum. Recognition of this pathologic entity probably would be more frequent if the omentum were thoroughly inspected in all cases in which sufficient pathologic evidence to account for the clinical symptoms has not been clearly demonstrable.

References

1. Bang-Dietrichson, Ole: 1 tilfelle av infarkt i omentum majus. *Nord. med.*, 12:3413-3414, 1941.
2. Berger, A. R.: Hemorrhagic infarction of the greater omentum. *Arch. Surg.*, 36:497-499, (Mar.) 1938.
3. Bush, Paul: A case of haemorrhage into the great omentum. *Lancet*, 1:286, (Feb. 1) 1896.
4. Durando, A. C.: Infarto primitivo del epiplón mayor. *Bol. soc. de cir. de Rosario*, 12:175-182, (July) 1945.
5. Hines, L. E.: Hemorrhagic infarction of the greater omentum. *Illinois M. J.*, 66:166-167, (Aug.) 1934.
6. Hunter, C. H.: Hematoma or apoplexy of the omentum. *Northwest Lancet*, 24:228, 1904.
7. Johnson, A. H.: The great omentum and omental thrombosis. *Northwest Med.*, 31:285-290, (June) 1932.
8. MacKenzie, W. C., and Small, James: Primary idiopathic segmental infarction of the greater omentum. *Canad. M. A. J.*, 55:144, (Aug.) 1946.
9. Morton, C. B.: Intra-abdominal apoplexy. *Arch. Surg.*, 36:723-728, (May) 1938.
10. Pines, B., and Rabinovitch, J.: Idiopathic segmental infarction of the greater omentum. *Surg., Gynec. & Obst.*, 71:80-85, (July) 1940.
11. Schottenfeld, L. E., and Rubinstein, Hyman: Hemorrhage and thrombosis of the omentum. Their etiology in the acute abdomen. *Am. J. Surg.*, 51:449-451, (Feb.) 1941.
12. Totten, H. P.: Primary idiopathic segmental infarction of the greater omentum. *Am. J. Surg.*, 56:676-679, (June) 1942.

EPITHELIOMAS OF THE LOWER LIP

(Continued from Page 986)

factory end results are to be anticipated in those cases in which no involvement of the nodes is demonstrable at the time of their removal.

Dissection of the cervical nodes is hardly justifiable if the primary lesion is graded 4. Under these circumstances, much more can be accomplished by roentgen and radium treatment to the neck than by dissection of the cervical nodes. As a matter of fact, many lesions of Grade 4 malignancy on the lips can be completely cured by irradiation if they have not produced generalized metastasis.

Dissection of the cervical nodes is undesirable

for patients of advanced age, in poor general physical condition or with too extensive involvement of the nodes in the neck. Under these circumstances, irradiation may be considered. It is true, of course, that metastasis is less likely to develop in elderly individuals and, consequently, the removal of cervical nodes as a prophylactic measure is not advocated for patients who are more than seventy years of age. When involvement of the cervical nodes is so extensive as to contraindicate dissection of the cervical nodes, irradiation is recommended as a palliative rather than a curative measure.

PENICILLIN AND STREPTOMYCIN AEROSOL THERAPY FOR CHRONIC BRONCHIECTASIS

ARTHUR M. OLSEN, M.D., F.A.C.P.

Rochester, Minnesota

BRONCHIECTASIS is a serious disease which merits the attention of all physicians. Since it often goes unrecognized in its early phases, a chronic cough always should be investigated carefully. A positive diagnosis of bronchiectasis can be made only after complete bronchographic studies, for the symptoms and even the roentgenogram of the chest cannot be relied on in making the diagnosis.

In chronic bronchiectasis, the smaller bronchial tubes in the periphery of the pulmonary segments are dilated permanently. Cure can be effected only by removal of the segments of the lung that are involved. The symptoms of bronchiectasis are those of its complications. Secretions which accumulate in the dilated bronchi become infected and produce a chronic inflammatory process in the walls of these bronchi. As a rule, the infection associated with bronchiectasis is non-specific rather than specific. Thus, many types of bacteria are found in the secretions which constantly form in these bronchi. The common bacteria which can be demonstrated in the sputum of these patients are listed in Table I.

The nonsurgical treatment of bronchiectasis includes the effective drainage of the infected secretions and the destruction of the bacteria in the secretions and in the bronchial mucosa. Postural drainage is a time-honored method of helping to eliminate purulent secretions from the bronchial tree and should be employed in every case of bronchiectasis. Bronchoscopic examination is of particular value in the exclusion of organic obstruction in the larger bronchi and temporarily helps the patient in his struggle to rid himself of the noxious secretions which constantly form in the infected bronchi. Antibacterial agents have assumed a definite place in the management of infected bronchiectasis. The oral and parenteral administration of sulfonamides and antibiotic preparations has proved of limited value in the reduction of the volume of infected bronchial secretions but certainly has aided in the prevention of complications following pulmonary resection

TABLE I. COMMON PATHOGENIC BACTERIA FOUND IN BRONCHIECTATIC SECRETIONS

Gram Positive	Gram Negative
Pneumococcus	Escherichia coli
Streptococcus	Hemophilus influenzae
Hemolytic type	Aerobacter aerogenes
Nonhemolytic type	Klebsiella
Staphylococcus	Pseudomonas aeruginosa
Micrococcus	Proteus

for bronchiectasis. In recent months it has been demonstrated that the introduction of antibiotic preparations into the tracheobronchial tree is the most effective means of combating infection associated with bronchiectasis.

Methods of Administration of Antibiotic Agents

The two principal methods by which solutions of penicillin or streptomycin can be introduced into the bronchi are as follows: Solutions may be instilled directly into the trachea through the bronchoscope, through a tracheal catheter, or by supraglottic instillation with a syringe and tracheal cannula. The other method consists in having the patient inhale a mist or aerosol of the solution. Both of these methods have their advantages and disadvantages.

In our experience, direct instillation of antibiotic preparations into the bronchial tree is accomplished most satisfactorily by the supraglottic method. It usually is necessary to introduce 1 or 2 c.c. of a 5 per cent solution of cocaine into the trachea with a syringe and tracheal cannula. This procedure will provide sufficient local anesthesia to permit the patient to retain the solutions that will be instilled. Penicillin sodium is dissolved in physiologic saline solution in a concentration of 20,000 units per cubic centimeter, and 5 or 10 c.c. of this solution is instilled slowly. When streptomycin hydrochloride is used, it is dissolved in physiologic saline solution in a concentration of 0.1 gm. per cubic centimeter and, again, 5 to 10 c.c. may be employed. If the patient will lean either to the right or left side as he sits in his chair, the solution may be instilled into either side of the bronchial tree. If penicillin sodium and streptomycin hydrochloride are used, the solutions may be mixed and given at one time.

From the Division of Medicine, Mayo Clinic, Rochester, Minnesota.

Read at the meeting of the American College of Physicians, Chicago, Illinois, May 1, 1947.

Supraglottic instillations may be given daily for many days. The success of this form of treatment depends on the ability of the patient to cooperate. It is desirable that instillations be given when the patient's stomach is empty. Postural drainage exercises should be carried out before each treatment. This method of treatment is much more effective when the patient is able to retain the solution for several hours than when he can keep it only a short time. Many patients are able to retain the solution without the benefit of local anesthesia.

Supraglottic instillations require some expertness on the part of the physician as well as the cooperation of the patient. A large dose of penicillin or streptomycin or both may be given in a short time. For patients who have a large volume of purulent bronchial secretion, the supraglottic method has been effective, especially when employed as an adjunct to aerosol therapy. Disadvantages of the method are the frequent use of cocaine or a similar agent to produce local anesthesia and the fact that some patients are completely incapable of retaining the solutions.

Administration of nebulized antibiotic agents has been employed in nearly all of the cases of bronchiectasis treated at the Mayo Clinic. We have used either the Vaponefrin or DeVilbiss No. 40 nebulizer. Although we have tried the nebulizers equipped with large condensing bulbs or with rebreathing bags, we have returned almost invariably to the standard nebulizer because it is convenient and easy to handle. For hospital practice we have continued to use compressed oxygen as a source of positive pressure. For home treatment many patients have obtained small electric motors and air compressors or have used foot-operated air pumps.

We have been using penicillin sodium in concentrations ranging from 10,000 to 25,000 units per cubic centimeter. We usually give 200,000 to 400,000 units of penicillin daily. We have continued to use streptomycin only in cases in which Gram-negative organisms predominate in the sputum after a period of treatment with penicillin alone. In general, we find it desirable to mix streptomycin hydrochloride with penicillin sodium. Thus 200,000 to 400,000 units of penicillin and 0.5 to 1.0 gm. of streptomycin are dissolved in 16 to 20 c.c. of physiologic saline solution. Patients can nebulize 1 c.c. of solution in ten or fifteen minutes. Hospital patients are asked to

nebulize 2 c.c. every hour for eight or ten hours each day.

Preoperative Management of Bronchiectasis

Bronchoscopic examination and complete bronchographic studies are carried out in all our cases of bronchiectasis in which pulmonary resection is considered. Before lobectomy or pneumonectomy is performed in the suitable cases, it is desirable that most of the iodized oil retained in the healthy lung tissue after bronchographic studies be coughed up or absorbed. Whenever possible, nebulization therapy is instituted in the waiting period. Penicillin is used routinely, and streptomycin is used in cases in which Gram-negative bacteria are found in the sputum. Daily supraglottic instillations are carried out in some cases. The length of preoperative treatment depends on the volume of purulent secretions and the amount of lung tissue to be resected. Patients who have bilateral involvement are given a much longer course of preoperative treatment. In the usual case in which bronchiectasis is confined to one lobe, five to seven days of preoperative treatment is adequate. In the forty-eight hours prior to operation our patients now receive large doses of penicillin by intramuscular injection. Postural drainage exercises are employed in all cases.

It has been our definite impression that the preparation of patients for lobectomy with penicillin aerosol has been most helpful in preventing postoperative complications. Although in occasional cases empyema occurs, the incidence of complications following pulmonary resection for bronchiectasis has been very low.

Nonsurgical Management of Bronchiectasis

Unfortunately, many patients who have bronchiectasis are not suitable candidates for pulmonary resection. These patients often are the ones who are most desperately in need of help. Frequently they are dyspneic and chronically ill and often have disease of the accessory nasal sinuses. Their sputum often has a foul odor, and they are virtual outcasts from society.

No treatment will cure these individuals of their bronchiectasis. From experience we know that sufficient rest and good nutrition, a favorable climate and regular postural drainage will help them to control the bronchorrhea. Aerosol therapy has been of great benefit in a good many of these cases. However, a much longer period of in-

tensive treatment is required than in the pre-operative cases. Most of our patients have been hospitalized for their initial course of treatment, which may last from two to six weeks. Inhalation treatment with penicillin is started on admission. Stains and cultures of the sputum are made twice a week. An accurate chart of the daily volume of sputum is kept, and notations are made of character and odor of the secretions. Postural drainage is carried out before each meal and at bedtime. After a few days of treatment with penicillin, Gram-positive bacteria begin to disappear from the sputum and Gram-negative organisms may predominate. When this occurs, streptomycin is added to the solution. If a marked reduction in the amount of sputum is not obtained by this method of treatment, daily supraglottic instillations of penicillin and streptomycin are begun. The supraglottic instillations have been particularly effective in cases in which bronchorrhea is excessive and in which pulmonary fibrosis and emphysema are associated. When the daily volume of secretions has been reduced by 75 per cent or more, the patient is allowed to return home. He is asked to continue treatment at home, using 100,000 units of penicillin in 5 c.c. of physiologic saline solution each day. The patient regulates his further treatment by the amount of trouble he is having. Some patients control their symptoms by taking treatment two or three days a week. Others are able to go long periods without any treatment.

Results of Treatment

Arbitrarily, my colleagues and I have regarded response to treatment as satisfactory if the quantity of bronchial secretion is reduced by 75 per cent or more. In about 60 per cent of seventy-five cases of nonsurgical bilateral bronchiectasis, the use of penicillin aerosol alone has produced satisfactory results. Streptomycin has been used in conjunction with penicillin in many cases in which Gram-negative bacteria appeared in the sputum. Penicillin and streptomycin aerosol therapy have produced satisfactory results in 90 per cent of cases. Many of the patients received supraglottic instillations to supplement aerosol treatment.

After cessation of treatment, recurrences of bronchorrhea are common, especially after acute upper respiratory infections. Obviously, this

aerosol treatment does not cure bronchiectasis, but it has made the lives of a good many patients comfortable. In a few of our cases, symptoms have recurred and have not responded to further intensive treatment. In such cases we have been able to demonstrate bacteria in the sputum which are resistant to penicillin and streptomycin. *Streptococcus faecalis* has been a difficult organism to control. One patient has had an infection due to a type of colon bacillus which was resistant to streptomycin. It is our impression that Gram-negative bacteria are more likely to become resistant to streptomycin than are Gram-positive bacteria to penicillin. In some instances we have given a 5 per cent solution of sodium sulfathiazole by nebulization with apparent benefit. Fungus organisms found in bronchiectatic secretions are not sensitive to penicillin or streptomycin. However, such organisms seem to disappear as the bacterial invasion is checked.

Comment

Undoubtedly, many improvements will be made in this program outlined for the management of bronchiectasis. The use of vasoconstrictor solutions, such as neosynephrine hydrochloride, appears to have a place. Some authorities have used solutions of hydrogen peroxide as the medium for giving penicillin by nebulization. Penicillin has been mixed with iodized oil for supraglottic instillations. Oronasal masks have been employed, and an automatic demand valve of the Emerson type has been used to replace the finger-operated Y tube. Plastocele hoods have been designed for giving aerosols to infants and children, and aerosols have been produced in sealed rooms or compartments. New and more efficient nebulizers undoubtedly will be manufactured, and equipment for nebulization therapy certainly will be simplified and made more readily available.

Aerosol therapy and the intrabronchial use of antibiotics and other drugs have a definite place in the treatment of bronchiectasis. However, it must be remembered that a complication of bronchiectasis rather than the primary disease is being treated. The results of aerosol therapy are likely to be temporary, and continued or intermittent treatment is essential if improvement is to be maintained. The patient must be reminded that he is still subject to the hazards of a serious bronchial disease.

CLINICAL-PATHOLOGICAL CONFERENCE

A REVIEW OF 100 CASES OF RENAL FAILURE

WILLIAM D. COVENTRY, M.D., and ARTHUR H. WELLS, M.D.

Duluth, Minnesota

These 100 case studies were selected from 3,400 necropsy records on the basis of renal failure occurring as a most important factor in the causes of death. All cases of extra renal azotemia were excluded. The material represents the experience of twelve and a half years and 107,000 admissions to this general hospital. We have used a modification of E. T. Bell's classification¹ of renal diseases, so that the cases will be divided into eight groups: malformations, obstructions of the urinary tract with hydronephrosis and without pyelonephritis, pyelonephritis, glomerular nephritis, tubular diseases, vascular diseases, metabolic disorders, and tumors of the kidney.

Malformations

There was one case of fatal renal insufficiency in each of the congenital diseases: renal agenesis, cystic disease, urethral valve, and congenital stenosis of the proximal ureteral orifice.

Of particular interest in this group was the case² of a boy, aged three and one-half months, who had had mild digestive disturbances for one month. He was considered seriously ill with vomiting and weakness for only a few days before he expired with a blood urea value of 214 and a creatinine level of 5.3 mg. per cent. The necropsy revealed two semilunar valves in the lower prostatic urethra, with extreme dilatation of the proximal urinary tract and resultant advanced pressure atrophy of the kidneys. In contrast, is the seventy-three-year-old woman who expired in uremia as the result of severe bilateral congenital stenosis of the proximal ureteral orifices with bilateral pyelonephritis.

Hydronephrosis Without Pyelonephritis

In the group of renal insufficiency due to hydronephrosis without the complication of kidney infection there were five cases. One each of the diseases, prostatic, bladder and pancreatic carcinoma, prostatic hypertrophy and prolapse of the uterus, were represented.

The case with the prolapsed uterus in a seventy-two-year-old housewife is in some respects the most interesting of the entire study. The multiparous woman had known of her prolapse for thirty years. It extended 9 inches below the vulva, and when returned to its proper position by her physician, Dr. Elizabeth Bagley, there was a spontaneous gush of a great volume of urine. She was in *extremis* when admitted and expired within twelve hours. The necropsy revealed a grade IV hydro-

nephrosis with mere shells of kidneys remaining. The bilateral hydroureter began a few centimeters above the urinary bladder on each side.

Pyelonephritis

The cases with interstitial kidney infections leading to renal failure were divided into those with urinary tract obstruction, numbering twenty-six, those without urinary passage obstruction eight, and those with tuberculosis three (Table I).

TABLE I. DISEASES OF INTERSTITIAL TISSUE—
PYELONEPHRITIS

A. Pyelonephritis with urinary obstruction	
1. Urethral stricture.....	1
2. Prostatic hypertrophy.....	11
3. Prostatic cancer.....	1
4. Bladder cancer.....	4
5. Cervix cancer.....	5
B. Pyelonephritis without urinary obstruction.....	8
C. Specific infections	
1. Tuberculosis.....	3

In the first group with obstruction of the urinary tract were eleven patients with benign prostatic hypertrophy, all of whom were over seventy years of age except for three who were sixty-three, sixty-seven and sixty-nine years old. The creatinine level at death averaged 4.7 mg. per cent. There was no significant systolic or diastolic hypertension present in these patients.

A review of the eight cases of pyelonephritis without urinary tract obstruction revealed all the patients under the age of seventy years except for three who were seventy-six, seventy-seven, and seventy years old. The youngest was forty-seven. Very high creatinine values were reached before death, averaging 12.3 mg. per cent. There was no significant hypertension in this group. Most of these patients had 100 pus cells or more per high power field in their urinary sediment. A correct antemortem diagnosis was not made in a single case, possibly because of the many infectious complications found in these pyelonephritic patients.

There were twenty cases with bronchopneumonia among the twenty-four patients in the pyelonephritic series, while among the seventy-six patients of all the other causes of renal failure there were only seventeen with bronchopneumonia. Of the other serious infectious complications besides pneumonia, there were twenty in the entire 100 cases studied. Seventeen of these occurred in the pyelonephritic series. Uremic pericarditis was not considered infectious. It was fairly equally divided in the various groups and was found in fifteen cases.

From the Departments of Pathology and Medicine, St. Luke's Hospital, Duluth, Minnesota.

CLINICAL-PATHOLOGICAL CONFERENCE

Glomerular Diseases

There were sixteen cases of glomerular nephritis divided between acute (four), subacute (two), and chronic (ten) (Table II). Our classification varies from that of Bell's in that we did not divide the glomerular nephritis cases into nephritic and nephrotic types. We did not have a single case of so-called lipoid nephrosis, in the more widely accepted sense of the term. There were thirteen of the sixteen cases of glomerular nephritis with severe edema, while in the entire study of eighty-four other cases there were only fifteen additional patients with severe edema of tissues at the time of death. None of our four cases of acute glomerular nephritis had hypertension. Francis Murphy, however, finds that 75 per cent in a large series of acute glomerular nephritis cases develop hypertension.

TABLE II. GLOMERULAR DISEASES

A. Glomerular nephritis	
1. Acute.....	4
2. Subacute.....	2
3. Chronic.....	10
B. Lipoid nephrosis.....	none
C. Amyloid disease.....	2
D. Focal embolic nephritis.....	1

Nine of the patients with chronic glomerular nephritis were under sixty years of age, while the tenth was sixty-eight. All of the patients with chronic glomerular nephritis had moderate hypertension, and in only three the systolic pressure was over 200 mm. mercury. Only five of the hearts weighed over 400 grams, and the heaviest was 595 grams. The kidneys of three patients were 150 grams each, or more, while all the remainder were severely reduced in weight. Bell found no relationship between the size of the kidneys and the size of the heart, or between the size of the kidneys and the blood pressure, in patients dying with chronic glomerular nephritis. The average last creatinine value in our group was 6.5 mg. per cent. The urinary sediment showed not more than 0 to 50 red blood cells and 0 to 50 white blood cells per high power field.

Tubular Disease

We found one case each of bichloride and sulfathiazol injury of the kidneys leading to death. The latter occurred when the drug was first introduced for general use and before the importance of maintaining maximal fluid intake, alkalization, and observation of the white blood cell count and the urine sediment were fully appreciated. The great wonder is that we have not had more deaths, considering the number of patients receiving sulfonamide drugs. Two additional patients in the tubular disease group expired as the result of plugging of tubules of the kidneys by casts of unknown nature.

Vascular System Disease

Our largest single group of patients in the study was that of the arteriosclerotic series (Table III), which totaled twenty-four cases. Three patients died primarily as the result of arteriosclerotic nephritis. Five had diabetes mellitus with renal failure. The one patient with

bilateral cortical necrosis was a forty-nine-year-old woman who expired after five days of anuria developing immediately following a spontaneous delivery of a normal child.³

TABLE III. BLOOD VASCULAR SYSTEM

A. Arteriosclerotic (large artery).....	3
B. Arteriosclerotic (small arteries).....	24
C. Diabetes mellitus.....	5
D. Infarction cortical necrosis.....	1

A review of the large arteriosclerotic series reveals a number of interesting points. These patients died at all ages between twenty-two and ninety years. All had severe systolic and diastolic hypertension except for five patients who had debilitating complications. The remarkably large hearts weighed from 500 to 760 grams except for two weighing 305 and 350 grams. In Bell's patients, 95.5 per cent of the male hearts weighed over 400 grams, and 83 per cent of the hearts of females were over this weight. Eighty-two per cent of Bell's large series had systolic pressures over 200 mm. mercury. The kidneys in our series averaged below 150 grams each in weight and ranged from 35 to 170 grams. The average creatinine value of our series was 7.0 mg. per cent at the time of death.

Five patients with Kimmelstiel-Wilson syndrome (diabetes mellitus, hypertension, 4-plus albuminuria and sclerotic changes in small arteries and glomerular capillaries) expired as the result of renal insufficiency. Thirty-three of 149 cases of diabetes mellitus in Bell's series died in uremia; of these, only eighteen had structural changes in the kidneys.

Metabolic Disorders and Neoplasms

There was only one death in this study due to pyelonephritis complicating renal calculi. The cause of the calculi was not apparent.

The last unusual case was that of a sixty-three-year-old male with a Wilms tumor of the right kidney, which metastasized to the hilar region of the left kidney, eventually terminating in uremia.

Summary

A brief review of 100 cases of renal failure due to kidney diseases culled from 3,400 necropsies is presented.

Several unusual and rare conditions, including urethral valves, congenital ureteral orifice stenosis, uterine prolapse with extreme bilateral hydronephrosis, bilateral cortical necrosis and Wilms tumor in a sixty-three-year-old male, were found in the study.

The largest single group (24 per cent), with arteriosclerosis, had outstanding high blood pressures and huge hearts. Five diabetic patients expired because of sclerotic changes in small arteries and capillaries of the kidneys. Renal failure resulted from sclerosis of the large renal arteries in three patients.

Thirteen of the sixteen patients with glomerular nephritis had severe edema at the time of death, while there were only fifteen additional patients with severe

(Continued on Page 1032)

History of Medicine In Minnesota

NOTES ON THE HISTORY OF MEDICINE IN COTTONWOOD COUNTY

L. L. SOGGE, M.D.

Windom, Minnesota

(Continued from August issue)

Dr. William David Moir Beadie (1874-1941) was born of Scottish parents in Toronto, Canada, on June 15, 1874, and lived there until his family moved to Montreal when he was thirteen years old. He was graduated in medicine from McGill University in 1900 and practiced medicine in Windom, Minnesota, from 1901 to 1910, moving then to Saint Paul where he remained in general practice until, in 1917, he became superintendent of Pokegama Sanatorium. From Pokegama he went to Cannon Falls to take over direction of the Mineral Springs institution in 1923.

In 1903 he married Miss Elizabeth McGregor of Windom. To this union was born a son, William McGregor Beadie, who now resides in Saint Paul with his two sons, David Moir Beadie and William Merrill Beadie.

During the period of his practice in Saint Paul, Dr. Beadie was a member of the medical staffs of the University Hospital, the City and County Hospital, the Gillette State Hospital and the Jean Martin Brown Home for Orphans. He was also a member of the Ramsey County Medical Society until his death and of the Minnesota State Medical Association, the American Medical Association, the Minnesota and the American Trudeau Societies and the National Tuberculosis Association.

When Dr. Beadie took over the direction of the Mineral Springs Sanatorium at Cannon Falls—the institution which absorbed all of his interest for seventeen years—he found an institution of twenty-five beds, a limited untrained personnel, small equipment and supported by only three counties. When he retired because of ill health on January 1, 1941, he left a completely modern institution of 110 beds, staffed by trained personnel, supported by six counties and ranking third among tuberculosis institutions of the state. The work and planning and devotion entailed in such an achievement was clearly hard and exhausting.

The growth of the Mineral Springs Sanatorium under Dr. Beadie's direction was remarkable. There is a modern four-story building now, in place of the original twenty-five bed institution, with its own power plant, concrete water reservoir, nurses home, laundry and house for the superintendent. Modern x-ray equipment and a well-equipped laboratory have been added. The institution is staffed with registered nurses—indeed it was the first tuberculosis institution of the state to employ only registered nurses. Patients of the institution have radio earphones at each bedside. They publish their own monthly magazine, *The Sanscript*, which, incidentally, devoted an entire issue to praise of Dr. Beadie and his work when he retired from office. They have a Sanatorium book club to supplement the permanent institution library

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and they are encouraged to do all kinds of suitable hand work and occupational therapy.

The Sanatorium also has a full-time field nurse as the result of Dr. Beadie's efforts, and clinics are held throughout the district under direction of the superintendent. The district which began with Goodhue, Rice and Dakota Counties, now includes Olmsted, Mower, and Freeborn, all of which assist in support of the institution.

Obviously, Dr. Beadie made a far-reaching contribution to the control of tuberculosis in Minnesota. He devoted the major part of his professional life to its prevention and cure and led in the statewide sanatorium movement which has worked so vigorously in Minnesota for isolation for all active cases of tuberculosis and for periodic examinations of all who have been in contact with active disease.

When ill health forced him to retire from the Sanatorium in 1941, Dr. Beadie went back to Windom where he first started the practice of medicine forty years ago, and where Miss Margaret McGregor, sister of Mrs. Beadie, still lives. His death on February 7, 1941 cut short a plan to build a home and live there in quiet and retirement.

Affiliate membership in the Minnesota State Medical Association to which Dr. Beadie became eligible at his retirement, was not awarded until after his death. The permanent bronze membership card, now awarded to all affiliates, was presented by order of the Council to his family.

Dr. Beadie was a gentleman, a distinguished physician, and a recognized authority on the care and control of tuberculosis in Minnesota.

Among his fellow physicians he will long be remembered as a beloved colleague who upheld the best and highest ideals of his profession and as a leader in the development of our fine system for care of the tuberculous sick in Minnesota. Among his hundreds of patients at Mineral Springs Sanatorium he will be remembered as a friend who never failed them in kindness and generosity and who brought health and hope to many who otherwise would have died unaided.

In the passing of Dr. Beadie, the Minnesota State Medical Association as well as the Ramsey County Medical Society of which he was a member for so many years, lost one of its finest exemplars of devotion to duty and to the highest ideals of medical practice.

John H. Tilford (1841-1899) was for many years, from 1878, one of the leading and most successful physicians and surgeons of Windom, Cottonwood County, Minnesota. The place of his nativity is found in Jefferson County, Indiana, where he was born on November 28, 1841.

The parents of Dr. Tilford were Joseph M. Tilford and Mary A. Maxwell Tilford, natives respectively of Kentucky and Indiana. Joseph M. Tilford left Kentucky when about twenty-one years of age and settled in Madison, Indiana, where he engaged in the cabinet making business. He carried on an extensive trade until 1851, when he removed to the city of Indianapolis, where he engaged in the same business. In 1856 he sold out and purchased the *Indiana State Journal*, of which he became the publisher. When the hard times came, in 1870, his business had to be abruptly closed, and he retired to private life.

John H. Tilford, one of a family of nine children, received early educational advantages of a high order. After completing a course in the district schools, he went, at the age of eighteen years, to Northwestern Christian College in Indianapolis, where he was a student several years. He then began the

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study of medicine in Indianapolis with Drs. Jamison and Funkhouser, with whom he continued for three years. He next attended medical lectures at the University of Michigan, Ann Arbor, during the winter of 1861-1862. In the spring of 1862 he accepted an invitation from his old preceptor to enter the city hospital of Indianapolis to assist in caring for the sick and disabled.

In August, 1862, Dr. Tilford was commissioned as assistant surgeon of the Seventy-ninth Indiana Regiment of Volunteer Infantry, and with a portion of the regiment he went to Louisville, Kentucky. Throughout the war he served as military surgeon, in Kentucky, Tennessee, Georgia and Alabama; always on duty, during three years he never left his command.

On being mustered out of the service, he returned to Indianapolis. During the winter of 1865-1866 he attended a course of lectures at Bellevue Hospital Medical College. He then returned again to Indianapolis, where he practiced medicine for one year. His next move was to Pittsborough, Hendricks County, Indiana, where he engaged in medical practice for nine years. During this time, in 1872, he was graduated from the Indiana Medical College. In 1878 he took an *ad eundem* degree in medicine from Butler University. On leaving Pittsborough, Dr. Tilford settled in Irvington, Marion County, Indiana.

In October, 1878, Dr. Tilford arrived in Windom, Minnesota. A man of excellent qualifications, highly educated, a master of the details of his profession, he built up in Windom a successful and lucrative practice, and he became a leading and influential member of the Minnesota State Medical Association. A constructive citizen who took an active part in public matters, he served as coroner of Cottonwood County and as a member of the board of his township and on the local school board. His numerous investments in various kinds of property were successful. On several lots that he purchased in the city he built an elegant residence and a well-equipped office.

Dr. Tilford was a member of the Republican Party. He belonged to the Masonic Lodge, the Independent Order of Odd Fellows and the Ancient Order of United Workmen, and the Grand Army of the Republic.

John H. Tilford was married in 1866 to Luna Meak, a native of Greenfield, Indiana. This lady possessed a superior education and was a graduate in music; she was an instructor in music for a number of years in Indianapolis, Noblesville and Greenfield, Indiana. Dr. and Mrs. Tilford had two children, Fred M. Tilford and Mattie R. Tilford. Dr. Tilford died in Windom on September 6, 1899.

Dr. Tilford and the late distinguished Dr. Harvey W. Wiley (1844-1930) were first cousins and good friends who corresponded regularly with each other. Dr. Wiley, a native of Kent, Indiana, was a son of Preston P. Wiley and Lucinda W. Maxwell Wiley.

Reminiscent comments have come from Dr. Tilford's daughter, Mattie (Mrs. William F. Sanger), of Windom:

As a pioneer doctor, Dr. Tilford had some serious experiences. Though I was a small girl, I well remember a few, because I was impressed by my mother's deep concern and worry over the terrible blizzards we had in the winters then. There were no telephones, and many times my father would be gone for two or three days at a time. On one occasion, with a driver, he started out in a bad blizzard and became lost. Both men got out of the rig to look for tracks and both fell into an old cellar; they managed to crawl out, recover the team, and finally reach their destination. My father always depended much on his horses and thought a great deal of them; he felt that if he ever became hopelessly lost the horses would eventually get him to a farm house or would bring him home. Often, when roads were impassable, he was obliged to leave the team and walk home, and many times, although

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he dressed as warmly as possible, with all he could carry, he reached home with icicles hanging from his eyelashes, nose and mustache, his cheeks frosted and also his feet. But whatever the weather conditions, if humanly possible, he never refused a call.

Frank Ressler Weiser (1865-1925) was born on November 10, 1865, at Sunbury, Pennsylvania. He was the son of Dr. George B. Weiser and Susan R. Weiser. His early education was secured in the public schools of Millersburg, Pennsylvania, and the Millersburg High School. He was graduated from the Philadelphia College of Pharmacy in 1888 and from the Jefferson College of Medicine in 1891.

Dr. Weiser practiced medicine for three years in Williamstown, Pennsylvania, from 1891 to 1894. On March 1, 1894, he was united in marriage with Miss Jeanette Schoch, and with his wife came to Windom, Minnesota, the same spring. He was licensed to practice medicine in the state in April, 1894. For thirty-one years he had an active part in the development and progress of his city, ever interested in all things that made for the betterment of the community.

Among his many responsible offices was that of councilor of the State Medical Association for the Second District of Minnesota. He was also a member of the Southwestern Minnesota Medical Society and of the American Medical Association. From January, 1911, to 1917, he was a member of the Minnesota State Board of Medical Examiners, serving as president in 1916. Dr. Weiser was interested in all forms of education; he was a member of the Windom board of education from 1915 to 1921, and served as clerk of the board for the last six years of that period. He was coroner of Cottonwood County several years. In politics he was an active Republican.

Among the most important of the doctor's interests outside of his professional and civic services was faithful and conscientious devotion to the Masonic fraternity. He was very active in the work of all the Masonic bodies in which he held membership, namely, Prudence Lodge No. 97, A. F. and A. M.; Windom Chapter No. 48, Royal Arch Masons; Windom Commandery, No. 39, Knights Templar; 32nd Degree Scottish Rite, Valley, Minneapolis; and Zuhrah Temple, Mystic Shrine. He was chairman of the advisory council of the Windom Chapter of DeMolay, which is sponsored by Masonry. He was also a member of the Royal Arcanum, Woodmen of the World, and the Woodmen Circle.

In early life, Dr. Weiser was baptized and confirmed in the Lutheran Church. In Windom he was affiliated with the Episcopal Church.

For several years toward the end of his life, Dr. Weiser was in poor health. In the autumn of 1924, because of an infection in his right foot, he was taken for examination to the Mayo Clinic at Rochester, where it became evident that amputation of his right leg was necessary in order to save his life. He recovered rapidly from the operation and again was active in his medical practice until early on the morning of May 22, 1925, when he was stricken suddenly with coronary thrombosis and died.

This beloved physician, loyal friend, good neighbor, kind and devoted husband, father and brother was survived by his wife, Jeanette Schoch Weiser; a son, Dr. Conrad Weiser, an Episcopal clergyman; a daughter, Helen, a schoolteacher; and two brothers, Dr. G. B. Weiser, of New Ulm, Minnesota, and William H. Weiser, of Millersburg, Pennsylvania.

NOTES ON MEDICINE IN FREEBORN COUNTY, 1857—1900

ANDREW GULLIXSON, M.D.

Albert Lea, Minnesota

This résumé begins with a modicum of early history of Freeborn County. This was included because the early hopes and aspirations of three of its pioneer doctors were quite intimately related to these beginnings. Again, in order to sense their "coming in and going out," a picture of the *tempora et mores* of 1857 is necessary. How could those gallant men, with no knowledge of the basic sciences of today, and with such limited armamentarium, wrap themselves around the heartstrings of their clientele and become so indispensable? Only one conclusion is evident. They possessed a deep regard for courageous duty and, with that, a profound sense of human understanding.

*"When our earth came fresh and green and beautiful from a divine hand,
the great command was to 'Take it, people it, and subdue it.'"*

By the time people came to redeem that implied pledge, Freeborn County was still green and beautiful, but it had grown rugged and hard to subdue. Thirty beautiful lakes were found, together with a thousand and one marshes and sloughs. About half the county was woodland, intermingled with innumerable small clearings ready and suitable for tilling. The wooded areas were largely of oak; but hard maple, ash, hickory, walnut, butternut, hackberry, and other varieties of trees, brush and berry bush, were also plentiful. Half was prairie land mingled with sloughs and marshlands. But it "promised winter and summer, day and night, seed time and harvest."

And so they came. Town-site operators had sawmills in operation in 1856. In 1857 people came in numbers. Splendid folk came from the East to establish homes and farms. Land speculators and boomers came in numbers to cheat and plunder until satisfied or apprehended, and then moved on to new fields. There was yet no bounty on wolves. The real back-breaking work of permanent settlement and home-building was largely accomplished by the immigrants who came in increasing numbers from 1857 on. Of these the Norwegians came first; then the Irish were the most numerous. Then came the Danes, then the Germans, and last, the Swedes. But Norway and Ireland, though immortalized in history and in song for their scenic grandeur and beauty, were lands where poverty, hunger, regimentation, neglect, and want were familiar companions. That is the reason why these two peoples were the easiest and most quickly to be assimilated into the very soul of their new-found and beloved America. Their early devotion and patriotism is exemplified in the New York Irish Brigade and the Fifteenth Norwegian Wisconsin Regiment in the Civil War.

That is also a reason why these two peoples are expert politicians, as is exemplified here in Minnesota history. But they all came, not only hungry for food, but hungry for freedom in this new land of promise, hungry for homes, hungry for schools for their children and for churches where they could gather in their respective congregations and worship in freedom according to the faiths of their fathers.

The early pioneer immigrants were, for the most part, a pious people. They were hard-working, clear-headed folk, who faced misfortune and dangers with courage, yet were sympathetic and tenderhearted. Their occasional deficiencies in some of the elegancies of social conduct were more than compensated for by their love and regard for humanity. Instances of questionable neighborly conduct would occur between the Norwegians and the Irish on St. Patrick's Day, March 17, and on Norway's Independence Day, May 17. But the next day these same neighbors would be helping each other in the fields. A prominent Norwegian

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author described one of these May 17 celebrations, when the Irish lads exchanged compliments with the Norwegians, in essence as follows: The classes were assembled across the street from each other and the text books were the "mingled souls of wheat and corn," freely transferred from glass to lip. The urge finally came to cross the street and throw the Norwegian teacher out of his classroom. The meleé was lively and when a young Norwegian saw the battle going against his countrymen, he jumped down unsheathing his knife with the intention of assisting them in a larger way, but his teacher shouted to him, "Throw down your knife, my boy, we fight like Christian folk here in America."

Prior to March 4, 1855, Freeborn was still a part of Dodge County. On that date, the county limits were designated and the county was named Freeborn in honor of William Freeborn, a pioneer of Goodhue County. In March, 1856, one of the proprietors of Albert Lea townsite attended the territorial council in Saint Paul and succeeded in getting an act passed by which the organization of the county was perfected.

In November, 1856, the first election was held, and the entire voting population turned in forty-four votes. Post offices were established and mail facilities were provided by private enterprise. In March, 1857, the territorial legislature made provision for the county's independent government, and temporary officers were appointed. At the first general election in November, 1857, a full slate of officers was duly elected, with eleven precincts established, casting 664 votes. Dr. A. M. Burnham was elected coroner, but refused to qualify, and this office stood vacant for ten years. Dr. A. C. Wedge was elected to the Board of County Commissioners.

Besides the village of Albert Lea were Itasca, St. Nicholas, Shellrock, and Bancroft, standing as eager and potent contenders for the county seat. Two other villages in those early years (1856, 1857) were Moscow and Freeborn. Later, in 1869, with the coming of the Milwaukee Railroad, there were Hayward and Alden, and finally, in 1874, with the coming of the Minneapolis & St. Louis Railroad, were Emmons, Manchester, and Hartland. The first townsite operator in Albert Lea came in 1855. In 1856 appeared several well-educated, clean-cut, solid businessmen. In 1857, the first doctor, A. C. Wedge, came, as did also a good lawyer. Thus, Albert Lea was established by men of unusual energy and intellectual talents, and all of these men were used courageously and effectively through the guerilla warfare that later centered in the county seat fight. They were men of good character and judgment, steeped in the traditions of the town meetings of New England. They worked together with full cognizance of their responsibilities in building order out of chaos and they were willing and ready helpers to the immigrant pioneers in setting up their local governments. When the squatters' rights under the pre-emption laws were in jeopardy in President Buchanan's term of office, these men furnished an expense account and sent a delegate to Washington to help frustrate the plans of conniving land sharks, who were succeeding in their greedy acquisition of immigrant lands and homes.

The first white man to enter Freeborn County was Col. Albert Miller Lea with a detachment of 180 troops in 1835. An account of his observations reads as follows:

"We passed through that beautiful region of lakes, open woods, and prairies in which the headwaters of the Blue Earth and Cedar rivers intertwine. We came upon an elevated promontory descending rather abruptly to the most beautiful lake we had ever seen. We stopped an hour at that exquisite spot and took a sketch of the lake."

The first white settler, Ole Guldbrandson, who came in 1853, was a Norwegian who settled in the vicinity of Shellrock. His log cabin of that date now stands

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neglected on the county fair grounds. When he saw the smoke from nearby cabins in 1856 or 1857, he moved on. The order of settlement, after the hunter and trapper had passed on and the townsite operators had surveyed and organized for a year, was as follows: first came the businessmen, doctors, lawyers, and immigrant settlers; together with the land sharks, gamblers, and poachers of government timber and lands; and finally, when prospects looked good and business seemed to warrant it, came the railroads. The first railroad, the Milwaukee, came to Albert Lea in 1869, sixteen years after the first settler. Only one trail from the south, via St. Ansgar, Iowa, came to Freeborn County and it continued westward to Blue Earth. To get to Saint Paul it was necessary to walk to St. Ansgar, thence north to Austin, and thence north to, and along, the Mississippi River.

Settlements took over the wooded sections first, where the pioneers erected their log cabins near the many clearings, where the soil was open for the plow and the planter. The prairies were not settled as heavily until after 1869, when the railroad provided transportation for lumber and supplies. Many early prairie pioneers lived in sod houses. The first school house in Alden township was built of sod.

Dr. Frank A. Blackmer, just two months before he died, delivered a lively address before the Society of Territorial Pioneers in May, 1900. He came to Albert Lea with his parents, Dr. and Mrs. Franklin Blackmer, in 1856, and remembered well that when he was a lad of ten years, bread of cracked corn, tea of the dried tender leaves of red root, coffee from dried browned acorns, beets, roasted wheat, and dried and ground corn were the daily fare, and when, during the panic of 1857, men were dressed in the only available clothing, which was made of bed ticking, and looked like convicts. Dr. A. C. Wedge, president of the society, in introducing him said: "During those years our acquaintances were more than ordinary. The hardships made us neighbors, friends, and brothers. We realize now that we builded better than we knew in laying the foundations for a splendid civilization. It is well that the younger generation be reminded of the valuable services that were rendered and how much comfort they now enjoy as a result of our pioneer life."—*Albert Lea Standard*, May 11, 1900. Dr. Blackmer spoke of the Hon. Henry M. Rice who, in 1841, spent the summer here hunting elk, deer, and other game; of the first townsite operator at Albert Lea; of the territorial legislature and the organization of the counties; and particularly of the first county seat contest between Albert Lea and Bancroft. He said:

"Albert Lea won by a majority of 165 votes. This important decision was brought about by the free use of whisky and the free distribution of a few town lots. In a few places women and children voted, and all the immigrants who passed through Albert Lea and Pickerel Lake were induced to stop and vote.

"In 1857 there was a large immigration into Freeborn County, and that fall was the beginning of hard times that lasted until the Civil War created a demand for wheat. Our nearest railroad town was McGregor, Iowa, 140 miles away. Wheat was then worth sixty cents a bushel, and it took ten days to make the trip. Farmers would take a load of wheat and dressed pork to market at McGregor and haul back merchandise for the merchants. Often when weather and roads were bad, the farmers came back in debt, having used up the provisions for expenses. By the spring of 1858 starvation began to stare the people in the face. That year was appropriately called "1800 and Johnny Cake," except that there were dozens of families who had no Johnny Cake. Quite a few lived on leeks, milk, and wild artichokes. Game and fish were plentiful, but few people had money enough to buy shot and powder. Fish seines were drawn regularly below the dam, but there was no salt to prepare fish with. In the air holes in the lake, tons of fish were caught. The boys in Shellrock had no money to play penny-ante with, and so they chipped in with suckers and called with pickerel."

(To be continued in the October issue)

President's Letter

LET'S NOT "LET GEORGE DO IT"

In judging a man, we look not only at what he has—his skills, his worldly goods, the influence he wields—but also at what he is. We look for an intangible something within him—his personality, his soul. Because we cannot readily look into a man's soul and evaluate what we find there, we must rely upon his actions with regard to his family, his fellow citizens, his community, to serve as the index to his inner makeup.

The medical profession today is judged by the public in much the same way. Its individual members are appraised by the people who look to them for service and help, not only according to their proficiency at relieving suffering or diagnosing a pain in the stomach (although it must be said that that factor counts for much), but also for their cordiality, sense of humor, cooperativeness, participation in community life and countless other qualities. The entire profession is being viewed by its public as the sum total of all the doctors which the individual members of the public have met, done business with or heard about. Unfortunately, if a doctor among the lot repeatedly fails to meet with his patients' expectations, his failure tends to detract from the entire profession. This fact has been dwelt upon by many a speaker and writer before, but it is important and bears repeating.

When life in America was less urban, less complex, the family doctor held a remarkably strong position in his community. He participated actively in civic matters, and it can truly be said that his life was dedicated to the people whom he had chosen to serve. In turn, he was repaid by the love and respect of a grateful community. What he lacked in scientific knowledge, he made up in human understanding. The scope of medical science today utterly dwarfs the efforts of medical science a generation ago, but what of our stock of those intangibles that make up the *art* of medicine? Does our command of this art anywhere nearly equal the mastery possessed by our forebears?

An "M.D." is traditionally a symbol of intelligent leadership. Yet many who bear this title exert themselves only where medicine is concerned, to the neglect of civic responsibilities, social service activities and community interest. Admittedly, the practice of medicine is demanding upon time and energy. Likewise, physicians are continually performing services for which they receive inadequate return or no return at all. But these services do not excuse any of us from supporting and contributing to those causes which are sincerely promoted in the interest of the less fortunate. Giving voluntarily to the needy is a practice of a free society. Either we must continue this practice or change it for a system of compulsory taxation to support a government-supervised dole.

We cannot expect the public to support the cause of free medicine if we do not give back to our communities in a measure at least proportionate to what the community has contributed to our well-being. In so doing, we of the medical profession can add materially to our prestige and good will. But there is another, broader consideration which involves the fundamental precepts that underlie our American freedom: to help assure the continuance of our type of free society, the members of all professions are going to have to do something more than just exert their skill as competent technicians or artisans. Above and beyond the daily job, there must be time out for genuine good citizenship. None of us, sensing the civic responsibilities and opportunities which daily confront us in our respective communities, can afford to shrug our shoulders and say, in effect, "Let George do it." If we do, we are being dishonest with ourselves as professional men, because we comprise an all-too-limited segment of the American public which, by training and ability, is able to exert powerful influence for good on behalf of our communities and our country.



President, Minnesota State Medical Association

Editorial

CARL B. DRAKE, M.D., *Editor*; GEORGE EARL, M.D., HENRY L. ULRICH, M.D., *Associate Editors*

SOCIALIST BORERS

AMERICAN Medicine and the Political Scene, a Washington report published every week or two by Marjorie Shearon, Ph.D., furnishes a keen analysis of legislative activities, particularly those affecting medicine. Her leaflet of August 20 offers further evidence of the socialistic activities among government officials.

It may not be generally understood that the Federal Security Administration, headed by Oscar Ewing, is made up of the Social Security Administrations, the United States Public Health Service, the Office of Education and other miscellaneous units including the Bureau of Research and Statistics. This is a billion dollar concern, and the head of the Federal Security Administration is in a position to exert widespread influence in favor of socialism, if he is so inclined. There is evidence that he has done so.

To quote from the leaflet of August 20:

"The Bureau of Research and Statistics in the Social Security Administration is headed by Falk and Cohen, protected by Altmeyer, and officially approved by Ewing and Truman. There is now ample evidence in the published record and even more ample evidence not yet presented that this particular cell in the Government has for years exerted an influence out of all proportion to its size. Falk and his associates have produced an enormous amount of material designed to sell the Wagner-Murray-Dingell Bills, or something like it, to the people at large, to organized labor and social workers in particular, and to Congress first, last, and always. Altmeyer and Cohen, or their representatives, have preached the Gospel of Geneva, i.e., the Socialist program of the International Labor Organization, up and down this hemisphere and in the capitals of Europe and Asia. This whole campaign for national compulsory social security, including tax-supported medical care, has been paid for by the American taxpayer."

Here we have, then, an administrative department of our federal government, whose officials favor socialism, using tax-supported facilities to influence legislation, absolutely contrary to the Constitution.

What this element in our government has in mind in the way of socialization of our national

economy is well illustrated by the Report of the Mission to Japan, in which a social security program for the Japanese is proposed whereby old age survival, invalidity, disability, and unemployment benefits, as well as medical care would be provided which would require as much as a 35.2 per cent payroll deduction. This plan would be the last word in a social security program and would provide little opportunity for a saving program. Add provisions for food, clothing, and shelter and you have a complete socialistic state.

It is high time that we had a house cleaning in Washington, and an elimination of those officials who have been using their influence to bring on a socialistic government. The social security program we have at present has doubtless come to stay. It involves enormous expense as it is, and certainly the addition of medical care would be a step toward complete socialization and eventual adoption of a socialistic state.

The people of the United States have not supported a socialistic political party, and it can be properly assumed they do not favor a socialistic state. It is not incumbent on government officials to use the power of office to change our national form of government.

ADULT HYGIENE AND GERIATRICS

THE INDIANA State Board of Health has developed an aggressive department under the direction of Dr. William F. King, and designated it Adult Hygiene and Geriatrics. Dr. King is chairman of the education committee of the American Geriatric Society. He urges his fellow committee members to develop interest and action in our respective states.

There is little need, presently, to quote for practicing physicians the rising tide of statistics that attest life extension and the preponderance of chronic disorders among our patients. Indiana reports that 50 per cent of current deaths are due to chronic diseases, in contrast to one hundred years ago, when 5 per cent were so listed. More than one-third of Indiana's population is now over for-

ty years of age, when chronic disorders date both to mortality and morbidity. Doctors are most happy, however, in the curing of acute or preventable disorders.

It is implied that medical students, due to the overcrowded curriculum in all schools, do not get enough indoctrination in terms of the problems of the aged which their future practice will provide and display. It is likely that the issues of aging, senescence, degeneration and malignancy are stressed unduly as *disease patterns* (pneumonia, coronary disease, diabetes) and the import of the social, economic, rehabilitation and adjustment factors in geriatric practice are considered on a par with cultural, political and international relations. The young practitioner soon finds out what it means to "become an umpire" instead of a healer for 40 to 60 per cent of his clientele. He gives them direction and guidance; he offers "cancer control" but his percentage of "cures" fades as chronicity obtrudes. Our medical journals of every type have the opportunity to step in where the medical schools leave off. Regional and national societies are encouraged to feature in their programs more papers and discussions dealing with Geriatrics and Gerontology. Two excellent journals now represent these two medical fields. They should be read much more widely.

E. L. TUOHY, M.D.

POLIOMYELITIS IN 1948

AUGUST, as a rule, is the month of greatest incidence of poliomyelitis. Why this variation in season and localities, we do not know.

The epidemic this year promises to be one of the worst, although that in Minnesota is comparatively mild. According to the U. S. Public Health Report of the week ending August 7, 1,239 new cases were reported for the nation at large, a slight increase over the preceding week. The incidence, however, showed a slight decrease in all three of the states where the epidemic has been the worst—in North Carolina from 212 to 179, in California from 224 to 177, and in Texas from 82 to 81. Through August 9, a total of 1,316 cases had been reported in North Carolina, for the most part in the western and central parts of the state.

The total number of cases reported in the nation up to August 7 was 7,039, as compared with 1,937 in 1947 and 5,450 in 1946, as of that date. In 1946, the year in which Minnesota was so hard

hit, a total of 8,841 cases had been reported for the nation up to August 17, the final figure for the year being 25,698.

The Minnesota State Department of Health has kindly furnished the following figures for 1948: Minnesota up to and including August 25 has had reported 340 cases—61 from Minneapolis, 17 from Saint Paul, 1 from Duluth, and 261 from the remainder of the state. Freeborn County has reported 56 cases and Faribault County 71. Total deaths reported for the state had been 18.

In 1947, only 201 cases and 13 deaths were reported for the entire state. In 1946, however, cases numbered 2,881 with 226 deaths.

It is to be fervently hoped that the large amount of research now under way will discover a means of preventing the paralyzing action of this virus which is undoubtedly harbored by many carriers.

SOCIALIZED MEDICINE

IN May, Governor Dewey and former Governor Stassen visited Oregon preceding the primary election in that state. During that visit Governor Dewey was asked to address the House of Delegates of the Oregon State Medical Society, which he did as follows:*

"This is a subject . . . with which I have had a rare and unique experience. I had the idea a few years ago that the widespread movement to broaden the base of medical care could be met by government action if the doctors were put in charge. In fact, . . . I thought I would try it out in New York . . . I appointed a commission of nineteen people . . . They hired a research staff and then went to work.

"Finally after . . . eighteen months the research came through . . . I was thoroughly convinced, beyond a shadow of any possible doubt, that **compulsory medical care was unworkable, that it would bankrupt our society and destroy the standard of medical care in our nation, and it would be the greatest catastrophe in the United States.**

" . . . I had felt all along that if there was any merit to this thing it . . . should be done on a state level and kept close to the people, and we ought not to use one hundred and forty-five million people as guinea pigs. We ought to use it on a small level and if it failed abandon it . . . We got the Saskatchewan program, the New Zealand program and the Australian program and it was absolutely clear on the record that every time they tried to compel people to pay a certain sum to government for medical care they destroyed the medical care they were to receive.

*Quoted from an editorial entitled "Dewey on Socialized Medicine," North Carolina Medical Journal, July, 1948, page 356.

"Compulsory, socialized medicine is no good. It cannot be done. Accordingly, I have spent the last two years knocking down every proposal that anybody has made to regiment the medical profession and the people of America through any program of socialized medicine. By making speeches publicly at every meeting of people that would listen to me on the subject, I have made clear that we have actually been through this thing, this thing which cost the people of my state \$200,000 to find out about. I don't want the money wasted. I don't want to run the risk of happening to the health of our people what has happened to the health of every group of people which has tried to drag the medical profession down to the Socialists' level. You won't drag anything up. You will enlarge the volume of medical care but utterly destroy the quality of medical care the minute you try that process."

As a result of Dewey's unequivocal stand against compulsory medical care on a national basis, the physicians of Oregon put on a whirlwind campaign in his support. The Oregon physicians also sent letters to other physicians throughout the country urging Dewey's nomination in Philadelphia. The results in Oregon and Philadelphia are now well-known history. The physicians of Oregon apparently were impressed by Dewey's stand and felt uncertain of Stassen's attitude.

Governor Warren, on the other hand, is well known to have just as decided views favoring political medicine and has twice attempted to establish it on a state-wide basis in California. It is to be hoped that, if elected vice president, he will not be able to influence Dewey to change what seems to be his well-considered opinion.

President Truman, on the other hand, has been a strong proponent of the Murray-Wagner-Dingell Bill and has urged its enactment in Congress.

The physicians of Oregon have the feeling that Dewey's impromptu talk before the House of Delegates of the Oregon State Medical Society had much to do with his nomination. Certainly his stand appeals to the profession throughout the country.

INACCURACIES IN BIRTH CERTIFICATES

The need for filing accurate and complete birth certificates as early as possible after the birth of a child is being stressed at present by the Division of Vital Statistics of the Minnesota Department of Health. The division is encountering a great many problems due to inaccuracies in birth certificates and delays in filing.

"Doctors throughout the state are strongly urged to fill in birth certificates accurately and transmit them

within five days after a baby's birth to the registrar of the city, village or township where the birth occurred," says Mr. J. W. Brower, acting director of the Division of Vital Statistics. It is essential, he points out, that birth certificates be legible, and that spellings of all names, and dates, be absolutely correct. A birth certificate that has been changed in any particular is not accepted by the courts as *prima facie* evidence, nor is a birth certificate that is filed as long as six months after the birth of the child concerned.

"Failure to file a birth certificate may result in a great deal of inconvenience and trouble for a person in later life, when it becomes necessary for him to present such evidence in order to establish proof of citizenship for employment, military service, a foreign passport, the right to vote or to hold elective office, or proof of age for obtaining life insurance or a pension," Mr. Brower states.

The process of securing delayed birth certificates is complicated, both for the individual concerned and for the Vital Statistics office, because it is often very difficult and sometimes impossible to obtain the evidence that is required by law for the filing of delayed certificates. It is much better if the birth certificate is properly filled in and filed shortly after the birth of the child.

Physicians are further urged to use a permanent type of ink in filling in birth and death certificates and other official documents. Records made with ballpoint pens have a tendency to fade and thus may become valueless.

Vaccination with BCG does not provide complete protection against tuberculosis and, until further controlled studies are conducted, cannot be recommended for the general population. However, since it appears to provide some degree of protection, its use is recommended for members of groups constantly exposed to tuberculosis if they have a negative reaction to the tuberculin test.—ATS Chemotherapy Comm., NTA, Nat. Tuberc. A. Bull., March, 1948.

NATIONAL HEALTH LEGISLATION

(Continued from Page 980)

very freedom and opportunity we are seeking to preserve and expand.

The progress achieved by the slower method of careful study of each problem and cautious and economical experiments preceding major programs may seem slow to those who want Utopia tomorrow, but so far in history all the promises of the leaders who insisted on trying to achieve Utopia in one jump have been redeemed only in the base coin of dictatorship and human slavery.

The United States will achieve far greater and more rapid progress in the field of public health, as in others, if we stick to the principles of freedom through which we have already achieved so much.

MEDICAL ECONOMICS

Edited by the Committee on Medical Economics
of the
Minnesota State Medical Association
George Earl, M.D., Chairman

DOCTORS, PHARMACISTS HOLD MEETING AT DULUTH

At the invitation of the Duluth Associated Pharmacists this spring, Duluth physicians were invited to a dinner meeting designed to promote interprofessional good will. The event was a highly successful one and almost immediately desirable results were obtained stemming from the mutual understanding and friendly feelings that were given a substantial boost. There is promise that the compliment will be returned by the physicians. Thus a definite start has been made on the long-advocated program of improving interprofessional relations. This worthy beginning stands as an example to other communities.

An immediate development was an invitation by the St. Louis County Medical Society for the Duluth Associated Pharmacists to join with them in appointing committees to co-operate and exchange ideas on new and varied pharmaceuticals, especially those frequently duplicated.

It is felt by the Duluth professional people that both the doctors and the pharmacists can derive a great deal of benefit from co-operative effort; and through such effort there will develop a better understanding of mutual problems. Ultimately, better service to patients, customers and to the community will result.

Co-operation Long Advocated

For a long time, professional leaders have advocated closer ties between the various groups engaged in serving the public, not only to bolster their positions and their efforts to preserve freedom of enterprise, but to enable them to render better, more effective and more economical service to the people. Members of the health professions outside of medicine, for example, are an important "public" which medicine must include in any consideration of "public relations." In

like manner, doctors are an important "public" which the pharmacist, the hospital administrator, the nurse, and the other professionals must consider. But such an enterprise as the Duluth meeting is more than just good public relations; it provides a means for the members of the professions to discover the interdependency of all groups which exists in a democratic society such as ours. It gives doctors a chance to see that pharmacists are concerned about professional relations and public relations just as is the medical profession, that they are as much in need of customer confidence as the doctors are in need of building up confidence on the part of their patients. Minor irritations and major problems can be cleared up co-operatively—everything from the unthinking dispatch by a busy physician of a prescription written unintelligibly to the addition of meaningless names to pharmaceuticals on the part of drug houses. Three definite steps have been advocated for the pharmacists and physicians to take in the interprofessional program begun at Duluth:

1. Physicians should strive to become thoroughly acquainted with the proven value of drugs prescribed; they should keep themselves informed.
2. Pharmacists should make known their problems when they involve the medical profession so that the profession can co-operate in remedying the difficulties.
3. Physicians and druggists should present their problems to drug manufacturers and obtain their co-operation.

With the understanding coming from a definite program such as the one now under way, physicians and pharmacists can join hands for the best possible service to the public.

STEPS TAKEN TO TACKLE MENTAL HEALTH PROBLEM

Under way at present in Minnesota is a definite drive to "do something" about the conditions in this state with regard to the care of the mentally ill. It has been long realized that the treatment for mental patients is more or less inadequate all over the nation, and with the passage of the Mental Health Act by Congress funds will be available to correct the undesirable conditions that exist.

Prior to this time, because of the lack of funds and facilities, it has been impossible to provide salaries attractive to qualified personnel and to render something more than just custodial care for mental patients. Now with the backing not only of a federal appropriation for improvement of services and for public health education, but also of the Governor and a number of influential citizens, it seems that remedial measures will eventually be instituted.

Minnesota's program begins with an annual grant of \$59,623 from the federal government under the Mental Health Act. These funds will be administered by the recently created Mental Hygiene Unit of the State Health Department and will finance a statewide program of service and education. In addition, there is strong indication that a program for improved facilities and treatment in Minnesota institutions will be laid before the state legislature in 1949.

The press in this state has carried on a most vigorous campaign to expose the conditions prevailing in Minnesota's institutions. Nevertheless there is some controversy over the exact status of these "conditions." The Governor's committee of citizens appointed to review the treatment of mentally ill in this state reports one set of facts and figures, while the Legislative Research Committee has made a report taking issue with the previous findings. No one disagrees, however, on the major point involved—that Minnesota's mental patients should and can be getting better treatment and care.

Another Study Under Way

Most recently announced is a study to be made by the State Division of Public Institutions to determine what the institutions need in the way of additional personnel, housing facilities and food preparation, the findings to be presented to

the 1949 Legislature, which will then be asked to appropriate sufficient funds to meet the needs.

Governor Youngdahl has promised that improvement in mental health will be a Number One project when the Legislature convenes. He has asked specifically for the following:

1. More adequate staffs for the state's seven institutions, with a near doubling of present personnel and with salary scales attractive to workers, doctors and nurses equipped to provide high grade care.
2. A training program for personnel, including a psychiatric training institute.
3. Better food for patients and better clothing and therapy equipment.
4. Appropriations to cover increased building costs since the original construction program was laid out.
5. Mental Health Clinics in local communities.

There is also talk of recommending that a new institution be erected, probably at Alexandria to take the burden off the other institutions in the state. An addition of 150 beds for senile patients at Moose Lake state hospital was recently authorized and the contract has already been awarded.

ANTIVIVISECTION CITED AS THREAT TO MEDICINE, LIFE

Although it used to be a harmless cult, the antivivisection movement has become a menace to medicine and to human life. So states a recent article in the *Saturday Evening Post* (July 24). With facts and figures to back up this contention, the author, Dr. Virgil H. Moon (professor emeritus of pathology, Jefferson Medical college) and his collaborator, David G. Wittels, show how what used to be a harmless belief held by some that it is morally wrong to experiment on living animals has been turned by clever opportunists into a racket.

The antivivisectionists are not to be confused with the true humanitarians who seek to protect animals from mistreatment and cruelty. The antivivisectionist puts animals above humans—at least, the only alternative to performing experiments on animals which the antivivisectionists offer is that of making human guinea pigs out of charity patients! This cult actually went so far, according

to Dr. Moon, as to send congratulations to Adolph Hitler when he outlawed animal experimentation in Germany in 1933. It is common knowledge now how the Nazis carried out their cruel and vicious tests on living persons.

Without experimenting on animals to determine the effects of drugs or to observe the behavior of living tissue in the presence of cancer, leukemia and other maladies, medical research must needs come to a halt. Hence, as the title of the *Post* article points out, these cultists are "Trifling with Your Life!" Such discoveries as penicillin, sulfas and streptomycin had to be tried first on animals before they could be administered to human sufferers from pneumonia and tuberculosis. Countless lives have been saved by drugs perfected with the aid of our animal friends, with this research being conducted by responsible persons who keep the distress of the animal to the minimum. But the antivivisectionists maintain it is morally wrong to save the life of a dying person and interfere with divine authority which had marked him for death.

Seek to Disparage Medicine

The antivivisectionists seek in other ways and by other false teachings to disparage the work of medical science.

They claim, for example, that the germ theory of disease is false; that cancer, tuberculosis and heart fund drives are carried on simply to collect money for animal experimentation; that parents should forbid vaccination or inoculation of children because materials used are merely frauds; that government reports on the fight against disease are written by physicians who are merely trying to build up their prestige; that rabies is not transmitted by dogs and the contention that dogs are responsible is a deliberate attempt by health departments to "scare" the people. Antivivisectionists also claim carrot juice is effective against cancer and that vaccination causes syphilis. Such teachings, up to now, the medical profession thought to be such utter nonsense that it could safely be ignored, merely laughed off or stifled by pointing out the facts about the lives saved through products discovered and tested through animal experimentation.

Not so, however. These "crackpots" have sold their ideas to politicians and to professional promoters. Their twisted beliefs are percolating into legislative halls and are being passed along to

people in public life who are respected or idolized by millions—for example, motion picture actors and newspaper publishers. Funds with which to propagandize and high-pressure the public into swallowing their false doctrines continue to pour in.

Medicine Must Act

The need for medicine to counteract this movement is obvious. It is hoped that the article on antivivisection will be read by a large number of doctors and other thinking persons for the facts speak for themselves. Legislators should be warned to be on guard against these false doctrines, for the health of the people is at stake.

It can be pointed out that the appeal of the antivivisectionists is irrational. It can be shown that although this group forbids inoculating rabbits with polio virus, for example, it does nothing to decry the trapping of mink to make expensive fur coats.

Nor does the antivivisectionist look with disapproval on the clipping of a dog's tail, the branding of cattle or the spaying of a female puppy. These are classified as "operations deemed necessary by the animal owner" and are considered proper. No one should deny the existence of sincere sympathy for animals suffering needlessly; what must be combated is the commercializing of this sympathy into a vicious and unfounded attack on the humanitarian principles of curative and preventive medicine.

VETERANS ADMINISTRATION TRAINS OWN PHYSICIANS

A program for training medical graduates in Veterans Administration Hospitals throughout the nation, authorized by the Eightieth Congress, seems likely to be carried through in Minnesota.

The VA's current residency-training program, carried on in co-operation with the University of Minnesota, has been highly successful and has generally improved the quality of care rendered to hospitalized veterans in Minnesota.

Present plans are to expand this program and offer "two or more" internships to medical graduates from the University of Minnesota and also to some graduates from other schools.

It is planned to begin the first internships about June or July of next year. The interns will get one-year tours of duty and will be paid a maximum of \$1,800 a year.

Minneapolis Surgical Society

Meeting of April 1, 1948

Dr. L. Haynes Fowler, Presiding

CARCINOMA OF THE BREAST An Analysis of 100 Questionnaires Sent to Patients Operated Upon at Fairview Hospital

L. A. STELTER, M.D.
Minneapolis, Minnesota

Although interest in carcinoma of the breast has been dominant for fifty years, there never has been a period of more controversy concerning the diagnosis and treatment than the present decade. Medical libraries are full of literature on tumors of the breast, and whole books have been written with as many as eight and ten chapters devoted to cancer alone.

During the past year 175,000 persons lost their lives from cancer, and approximately one-tenth of these deaths were from breast cancers. There are five times as many radical operations performed for cancer of the breast as for tumors of the entire gastrointestinal tract despite the fact that gastrointestinal cancers are three times as common.

Pack and Livingston state that the reason for this unusual attention to breast tumors is the accessibility of the mammary glands and their functional, sexual, esthetic, and psychological significance. Yet we, as a profession, are still failing to reduce the annual death rate from cancer of the breast.

With the passage of the National Cancer Institute Act in 1937 and the increased lay interest through donations and contributions, this country has established a basis for more comprehensive work on the problem of cancer, its detection and prevention.

Since the etiology of cancer is such a widely disputed and unsettled question, this paper, for want of time, will not discuss these theories.

Pathological classifications of breast cancer frequently employed are as follows:

1. *Steinthal classification*.—A clinical estimation of the stage or extent of the disease at the time of treatment—a classification as to stage.

2. *The pathological classification* as to the stage of cancer.—Determination of the extent of metastatic spread by microscopic examination of the excised axillary nodes.

3. *Broder's classification*.—A study of the anaplasia or degree of malignancy of the cells which constitute the tumor—a classification as to grade, namely, Grades I, II, III, and IV, which represent an ascending scale of anaplasia of the component cells of the tumor. Grade I and Grade II signify cancer composed in a large part

of adult and well-differentiated cells. These tumors are slow growing and less invasive. They are relatively radioresistant. Approximately 85 per cent of breast cancers fall within Broder's Grade III and Grade IV classification. These, theoretically at least, should prove radiosensitive.

4. *The clinico-pathological classification*.—(1) scirrhous carcinoma, (2) inflammatory carcinoma, (3) anaplastic carcinoma, (4) cystadenocarcinoma, (5) bulky carcinoma, (6) gelatinous carcinoma, (7) sweat gland cancer, (8) acinar cancer.

5. *The Lee clinical index of malignancy*.—A method for estimating the prognosis in individual cases, taking into account the above factors and additional clinical features noted.

The percentage of malignancies of the breast is closely related to the full maturity of the gland; and the age incidence, based on hospital records, is from forty to forty-nine years. Taylor has estimated that 73.5 per cent of mammary cancers occur in women past the age of forty years. There are many diagnostic signs of breast cancers, of which pain, nipple discharge, lump, retraction of the nipple, puckering of the skin, and palpable lymph glands are outstanding. Pain usually indicates a benign lesion, and a bloody or serous fluid discharge is only suggestive. Any single lump in a woman's breast during the age incidence of cancer should be considered cancerous until proven otherwise. Punch biopsies and x-ray photography are impractical. The only accurate means of diagnosis is excision and biopsy. We must teach our colleagues to be radical, with early excision of solitary lumps and examination by the microscope.

Our largest problem in cancer prevention is lay education. Perhaps such lay information as that printed in the *Readers Digest* of August, 1947, may stimulate women to submit to early examination.

The work of Dr. Augusta Webster, director of the Cancer Detection Clinic at Women and Children's Hospital, Chicago, and that of Dr. Leonard B. Goldman at the Queens General Hospital, New York, exemplify the progress in cancer detection work.

Recently more than 500 physicians gathered at Louisville, Kentucky, for a unique symposium on cancer problems and for the dedication of the world's first x-ray mobile unit for cancer detection. Keynote of the symposium was: "the best cancer clinic in the world should be in the office of the private physician." It is up to him to detect cancer early and help eliminate the disease (Table I).

According to Harrington, factors which influence results of surgical treatment are (1) the extent of the malignant involvement at the time of operation, (2) the thoroughness with which the operation is performed,

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TABLE I. TREATMENT RESULTS

Taken from Dr. Frank E. Adair's reports, *Annals of Surgery*, (Jan.-June) 1932

Treatment	Number	Died of Other Disease	Basis of Calculations	Number Living	Per Cent Living	Died of Cancer	Per Cent Died of Cancer	Living With Disease	Per Cent	Living Without Disease	Per Cent
Surgery alone	23	3	20	2	10	18	90	0	0	2	10
Irradiation alone	37	4	34	12	36.3	21	63.3	4	12.1	8	24.2
Combined Surgery and Irradiation	137	9	128	52	40.8	85	66.4	3	2.3	49	38.2

TABLE H. SURVIVAL RATES FOR DIFFERENT PERIODS AFTER OPERATION

Taken from Dr. S. W. Harrington's statistics reported in the *Pennsylvania Medical Journal*, (Jan.) 1940

Axillary Metastases	3 Years		5 Years		10 Years		15 Years		20 Years	
	Patients Traced	Per Cent Survival	Patients Traced	Per Cent Survival	Patients Traced	Per Cent Survival	Patients Traced	Per Cent Survival	Patients Traced	Per Cent Survival
Present	2987	42.0	2743	28.1	2110	15.5	1385	10.3	726	6.6
Absent	1729	83.1	1522	73.1	1109	54.5	752	41.9	410	34.9
Total	4716	57.1	4265	44.2	3219	28.9	2137	21.4	1136	16.8

(3) the degree of malignancy as shown by microscopic examination of the primary lesion, (4) the prevalence of other associated conditions such as pregnancy, (5) the general constitutional diseases, and (6) the age of the patient.

About 40 per cent of the breast cancers at the Mayo Clinic did not have metastases in the axilla at the time of operation. The proportion of this group living three years or more after operation was 85 per cent, or almost twice as many as in the group with axillary metastases, where the percentage living was 45.3. In the five, ten, fifteen, and twenty-year survival ratios of patients without axillary metastases, it was found that the improvement increased progressively over the group with metastases (Table II). The prognosis, then, is directly proportional to the size of the primary tumor, the metastases, and the grade of malignancy.

The operability of the patient must be determined first before operation is performed. If axillary involvement is present, x-rays of the lungs and the spine must be taken. The operative procedure is important. Since the introduction of radical surgery by Halsted, the method most widely accepted by the profession, the incidence of cure has been greatly increased. It is based on the theory that cancer spreads through the lymph stream; and the greater the extent of dissection, the better chance there is for cure. If these concepts are true, the most important considerations in treatment are early recognition and immediate, complete removal of the diseased tissues. If the condition is confined to the breast alone, a complete eradication of the disease can be expected.

Dr. McNealy, speaking before the Alumni Association of the Cook County Hospital interns and residents in November, 1947, stated that "a breast with a single solitary lump one centimeter in diameter removed by simple mastectomy would cure the patient." Tumors that have axillary metastases are too far advanced to

cure as they already have spread beyond the accessible tissue for excision. He condemned excision of solitary lumps and then closing the wound and waiting for microscopic examination. A planned attack is therefore essential: hospitalize the patient, be prepared to do a mastectomy—simple or radical—excise the lump, and have it examined immediately. One should never remove a lump without having a competent pathologist at hand.

With modern preoperative and postoperative care and the use of intravenous fluids, glucose, normal saline, plasma, and blood, haste is not essential in performing this important operation. Haagensen, in the symposium on cancer of the breast, January, 1946, gives a masterful description of the radical mastectomy. He emphasizes that the procedure takes five hours or more and warns that the operator must be prepared to prevent shock. He evaluates the principles of both Halsted and Willy Meyer, namely:

1. The excision of the skin over the whole breast, covering the defect with graft.
2. Excision of both pectoral muscles.
3. Complete axillary dissection.
4. Removal of excised tissue in one block.

The aim of postoperative irradiation is twofold: (1) to attempt destruction of cancer cells left by incomplete operations, and (2) to control recurrences. From the statistics shown in Table III, it is evident that there is little encouragement from its use except for the salving of our conscience and the moral responsibility to our patients to use all possible measures to obtain a cure.

Until newer techniques and procedures pass the test of reducing the mortality, we should use the combined tools of radical mastectomy and postoperative irradiation.

One hundred questionnaires were sent from the record department of Fairview Hospital to patients operated upon for carcinoma of the breast during the period from

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TABLE III. SURVIVAL RATES FOR DIFFERENT YEARS FOLLOWING
RADICAL AMPUTATION AND IRRADIATION
Taken from Dr. S. W. Harrington's statistics

	3 Years		5 Years		10 Years		15 Years		20 Years	
	Patients Traced	Per Cent Survival	Patients Traced	Per Cent Survival	Patients Traced	Per Cent Survival	Patients Traced	Per Cent Survival	Patients Traced	Per Cent Survival
Group with axillary metastases:										
With irradiation	2240	43.2	2011	29.4	1457	16.1	821	9.9	228	6.1
Without irradiation	747	38.6	732	24.3	653	14.1	564	10.8	499	6.8
Group without axillary metastases:										
With irradiation	1014	84.4	858	75.4	588	55.1	354	40.1	100	36.0
Without irradiation	715	81.1	664	70.2	521	53.7	398	43.5	310	34.0

1935 to 1946 inclusive. The purpose of this work was to stimulate interest among the members of the staff in follow-up work and to determine what our records might reveal on carcinoma of the breast.

No attempt was made to grade the cases, as illness in our pathology department necessitated the work of several different pathologists. However, the cases were all diagnosed as cancer in the clinicopathological classification—scirrhous carcinoma, adenocarcinoma, medullary carcinoma, et cetera.

The questionnaire sent to the patients was similar to that used at St. Mary's Hospital, Duluth, and was as follows:

Case No.

was a patient in Fairview Hospital in

The final results of this case are a matter of great interest to the Medical Profession and this Hospital in order to classify its records. Will you kindly answer the following questions and mail your reply in the enclosed stamped envelope?

Have you been in good health since leaving the hospital?

What is your present condition of health?

Have you had any treatment since leaving the hospital? If so, what has been the nature of this treatment?

When did you last see a physician?

Name of physician last seen:

Remarks:

A period of three months was allowed for the return answers, at which time we had sixty-six answers. Of the sixty-six patients, thirty-seven were living and well, and twenty-nine had died. These cases cover the work of eleven different operators. It was noted in analyzing the cases that in those cases in which radical procedures were performed followed by irradiation therapy, the results were more encouraging.

The percentage living, as determined by these questionnaires (Table IV), is not the percentage of cures for the period given in comparison to the number of patients operated upon, but it is a percentage of those who answered the questionnaire.

References

(For references, see Page 1043)

Discussion

DR. N. K. JENSEN: When I took my board examinations, I was examined by two nationally prominent surgeons in the oral part of the examination. Their first question was, "What would you do for a carcinoma of the

TABLE IV. A REPORT OF 100 QUESTIONNAIRES
SENT TO PATIENTS OPERATED AT
FAIRVIEW HOSPITAL

Year	Period	Number of Answers	Number Living	Number Dead	Percentage Living
1935	12 year	4	3	1	75%
1936	11 year	2	2	0	100%
1937	10 year	1	0	1	0%
1938	9 year	3	1	2	33%
1939	8 year	2	1	1	50%
1940	7 year	2	1	1	50%
1941	6 year	15	4	11	26%
1942	5 year	3	2	1	67%
1943	4 year	9	4	5	44%
1944	3 year	12	8	4	67%
1945	2 year	11	9	2	82%
1946	1 year	2	2	0	100%

breast?" I replied that I would do a radical mastectomy with axillary dissection. The next question was, would I follow up with x-ray irradiation? I was in the room another half hour without answering the second question because the two examiners got into an argument about whether or not to use irradiation.

It has never been adequately demonstrated by any statistically sound figures that postoperative irradiation is worth the physical trauma of the irradiation, the postroentgen illness and the resultant increased fibrosis. I am wondering if I am misreading the statistics, and I should like to know what others of this society believe.

DR. HORACE SCOTT: I should like to second Dr. Jensen's remarks. I have been wondering about the value of x-ray therapy. I should also like to raise a question to Dr. Stelter about another form of therapy which he did not mention, that of castration of a young woman before menopause. Might it be of value in the treatment of these individuals below forty-five years of age?

DR. ROBERT TENNER: Dr. Stelter's paper represents a good deal of worthwhile work and study, and certainly is a good project for many of our other hospital staffs to follow. I wonder about the advisability of excising so much skin, thereby necessitating skin grafting, as mentioned in the paper. In most clinics and hospitals this is not the usual procedure. I have been under the impression that the recurrences in the scar which are sometimes seen do not represent islands of tumor which have been left in the skin but rather recurrence from the underlying structures or implants spread around at the time of operation. I would like Dr. Stelter to enlighten us on this question.

DR. S. MAXEINER: I think that in the treatment of cancer one must not lose track of the fact that we have two problems: one is curative and the other is palliative. Some may say that it is not worth while to remove a

carcinoma of the breast, but who wants to live with one? I have made it a rule to take them off, almost regardless of what they look like. I operated upon a patient with a cancer as big as the palm of my hand and large axillary lymph nodes, and she lived five years, during which time her six daughters grew into young womanhood. It certainly was worth while. It was not curative but palliative. If one can provide the patient with six to twelve months of freedom from an odorous, sloughing mass, it certainly is worth while. One recent patient, who was unable to live in the home with her own child because of the stench, was completely relieved and able to be with her family to the time of her death.

Finsterer of Germany says that if the primary lesion is resectable, he must remove that lesion in spite of metastases elsewhere. Life is more comfortable without it than with it. We had one man who had had a carcinoma of the stomach removed, who was collecting insurance. They stopped his insurance because he was feeling so well. However, metastases to the liver finally got him.

We use x-ray routinely on patients with metastases. We have seen metastases in the skin and cervical nodes, which you could feel with your finger, grow while they were getting x-ray treatment, but I do think that some of them are responsive to treatment.

Someone asked about sterilization. We have tried it in several instances but have seen no demonstrable benefit. These, however, have been in patients with fulminating carcinoma. We are extremely radical with skin removal, and I suppose that 70 to 75 per cent are grafted at the time of the removal of the breast.

DR. ALBERT COTTAM: I have a very distinct recollection of an article by Dean Lewis published in the *Annals of Surgery* in which he analyzed the patients who had been operated upon for breast cancer without skin removal. Fifty-one had showed recurrences in the skin. I have a personal case which happens to concern my own sister, eighty years old, living in Cape Town, South Africa, who noted a lump in her breast. Unfortunately, she wrote to a newspaper doctor who replied that it was probably benign. It continued to grow, and she put herself in the hands of a group of doctors who performed a radical excision followed by x-ray. She wanted me to write to her doctors and find out what was done. I wrote them asking that she be told the truth. It sounded like a malignancy to me, and the fact that they were using x-ray therapy seemed to me that they must have found a malignancy. Her husband was Dr. George Heberden, the fifth doctor in line from the doctor who made notable contributions about the time of the American Revolution. You have heard of Heberden's nodes. He also did pioneer writing on arthritis deformans and angina pectoris.

DR. HERBERT PETERSON: The question in my mind always has been whether or not the treatment of breast carcinoma is ever curative, rather than just palliative. The fact that we refer to one-year or twenty-year cures is evidence that there is doubt in our minds as to actually curing a patient with either surgical or roentgenological therapy, or both. It has always been my opinion that we should give the patient every consideration, every "break," and that in no way should any form of treatment be omitted if we can prolong life with some degree of comfort.

DR. L. H. FOWLER: This discussion brings to mind two patients, neither of whom had any x-ray therapy. One patient, a lady now over seventy years of age, is in the hospital at the present time with cardiac decompensation and hypochromic anemia. Dr. W. A. Hanson and I performed a radical mastectomy upon her for a large carcinoma (4 by 4 inches) with skin attachment, eighteen years ago. No evidence of recurrence can be

found except periodic bouts of anemia. The second case is that of a woman upon whom I assisted Dr. E. Starr Judd perform a radical mastectomy in 1921 or 1922 for a large adenocarcinoma of the breast with axillary metastases. After nineteen years of good health, she developed a malignant lesion of the ribs and spine and subsequently died therefrom. The interesting question here is whether this patient developed a metastatic recurrence of the original cancer nineteen years later, or were these lesions metastases from a new growth? No local recurrence was present in the breast area. No other primary lesion could be found. Unfortunately no autopsy was obtained.

DR. STELTER: In answer to Dr. Jensen's question regarding x-ray therapy, I should like to say that Broder's Grades 1 and 2a are x-ray resistant, Grades 3 and 4 are radiosensitive. When you take a group of cases, it does not seem to do a great deal of good. I think we should give the patient all the treatment we can. In answer to Dr. Scott's question of castration of these younger women, I have not enough information or experience on this procedure. I have read about using testosterone on cancer of the breast with metastasis. The article reports two cases of malignancy of the breast in which testosterone gave relief when there was bone involvement. The article appeared in the *Medical Clinics of North America*, January, 1948.

As far as the skin excision is concerned, I have not been as radical in removing the skin over the breast and grafting later. I heartily agree with Dr. Maxeiner that the more radical we are, the better chance the patient has. What woman cares to live if she has an ulcerating breast? Take it off, and everyone is happier.

I just want to emphasize one thing more: early excision and biopsy of the lump. Too many practitioners see small tumors and suggest coming back next month, by which time it may be a far-advanced cancer.

A RARE COMPLICATION OF INTESTINAL INTUBATION

OSWALD S. WYATT, M.D., and
TAGUE C. CHISHOLM, M.D.

Minneapolis, Minnesota

Since 1938 the technique of intestinal intubation for decompressing by suction distended loops of small and/or large intestine has been developed and has gained wide acceptance. The unwieldy double-lumen Johnson tube was quickly replaced by the Miller-Abbott tube; more recently this is being replaced by the Harris, the Cantor, and the Honor tubes. Actually all of these more complicated tubes are merely refinements over Levin's simple naso-duodenal catheter and, as such, require precise care to achieve maximum effectiveness and to avoid serious complications.

Although the advantages of the nonoperative management of intestinal distention are beyond question, intestinal intubation, used injudiciously, can lead to serious and even fatal complications. It is not the role of this communication to discuss indications for the use of the Miller-Abbott tube, the technique of intubation, or the management of the intubated patient, but rather to recall some of the more common complications which have attended the use of the Miller-Abbott tube, particularly in children; to describe the case of a nine-year-old boy

in whom a rare complication of intestinal intubation was encountered; and to discuss, briefly, the merits of the Honor tube as an aid in avoiding such a serious complication.

Complications

In the nasopharynx, all who have used the tube are familiar with the "plugged nose" secondary to edema of the turbinates. This is particularly likely to occur in children, in whom the nasal airway is so nearly equal to the outside diameter of the tube. Minor epistaxis and pharyngitis, secondary to mechanical excoriation of the nasopharyngeal mucosa by the tube, are not uncommon. The most serious complications in the nasopharynx, secondary to employing the tube, include an occasional sinusitis, eustachian salpingitis and acute otitis media. These last two complications are especially prevalent in children, in whom the local developmental anatomy leaves the Eustachian tube mechanically receptive to retrograde secretions with ensuing infections.

In the larynx, Kaufman et al⁶ have experienced such a degree of acute edema that tracheotomy had to be resorted to. Iglauer and Molt⁵ have reported necrosis and permanent damage to the larynx as sequelae of prolonged intubation with laryngeal edema. Wangenstein¹⁰ has commented upon damage to the arytenoid cartilages following prolonged intubation.

In the esophagus, the mucosa is well known for its thinness and friability; this is even more true in infants and children than in adults. It is extremely common to find severe erosion of the esophagus in the pediatric age group in whom intestinal intubation has been pursued over even a brief period of time. Vinson⁸ has reported late esophageal stricture formation secondary to prolonged indwelling of the intestinal tube.

In the stomach, the problems of intestinal intubation in children are the same as those in adults. The difficulty of getting the tube past the pylorus and the great inclination of the tube to coil in the stomach are familiar problems. Occasionally knots have become tied in the tubing as it coils in the stomach or as it improperly prolapses into the duodenum. Mahon⁷ has reported erosion of gastric mucosa with perforation and peritonitis secondary to intestinal intubation.

In the small intestine, secretions do accumulate in the loops proximal to the sucking tip, as is well illustrated in the case reported here in detail. Berger and Achs² have had the metal tip of the Miller-Abbott tube become fixed at the level of an extrinsic fibrous adhesion; subsequently the tip of the tube perforated the small intestine and peritonitis ensued. In 1940 Walker⁹ reported on an experience in which the Miller-Abbott tube was advanced to the level of a small bowel obstruction to facilitate x-ray diagnosis; the barium inadvertently was introduced into the balloon which, fortunately, ruptured as it was withdrawn through the cardia of the stomach. It is an extremely common experience for those who employ the Miller-Abbott tube to any extent to have the lumen become occluded with intestinal contents. While still using a double lumen tube, Harris³ reported an instance of intussusception accompanying an overdis-

tended balloon. Several surgeons have encountered retrograde intussusceptions from the too rapid withdrawal of the Miller-Abbott tube, both with the balloon inflated and deflated.

The mechanical problems to which Miller-Abbott tubes are prone are common property to their use in all age groups. Leaking tubing, unusually flexible old tubing, leaking or ruptured balloons, leaking or transposed adapters—these complications are inherent in this kind of precision equipment.

Case Report

The following case report is presented to illustrate another type of complication resulting from intestinal intubation with the Miller-Abbott tube:

W. A., a nine-year-old white boy, was admitted on March 30, 1947, to the hospital service of Drs. Richdort and Gibbs because of an eleven-day illness characterized by cough and abdominal pain. For the first two days of his sickness he had frequent chills, a coffee-colored sputum and a continuous high fever; his abdominal pain was generalized and not too prominent. For the four days just prior to entry he had had increasingly severe abdominal pain with continuous vomiting. There had been a few loose stools on the two days before hospitalization.

Physical examination on admission revealed a temperature of 101.6° F., a pulse of 156 and respiration of 40 per minute. The blood pressure was 122 systolic and 80 diastolic in millimeters of mercury. The boy was extremely toxic and markedly dehydrated. There were râles over only the right upper and middle chest. The abdomen was distended, rigid, tender and with some intestinal patterning. Auscultation disclosed high-pitched, frequent borborygmi. Rectal examination revealed a tender mass 10 centimeters in diameter, filling the right pelvis and extending across the midline.

A roentgenogram of the chest on entry showed an increased density over the right upper and middle lobes. Abdominal films showed marked small bowel distention with fluid levels and no gas in the large bowel (Fig. 1).

The white blood count was 13,350, 80 per cent being polymorphonuclear leukocytes, most of which were toxic forms. The red blood cell count was 3,800,000, and hemoglobin 79 per cent. The urine specific gravity was 1.031, showed acetone and the sediment was normal.

For the first nine hours in the hospital, efforts were directed towards combatting (1) dehydration and acidosis with intravenous fluids, (2) right upper and middle lobe pneumonia with penicillin and later sulfadiazene, (3) peritonitis and small bowel obstruction with penicillin and streptomycin, high concentration oxygen and nasoduodenal suction. In spite of these efforts, abdominal distention clinically and dilatation of loops of small intestine radiologically were progressive (Fig. 2). Operation was decided upon.

Under pentothal and curare anesthesia supplemented with nitrous oxide and oxygen, the abdomen was opened through a right rectus incision. Many loops of small bowel, averaging 6 centimeters in diameter, prolapsed into the field. A ruptured appendix with the tip blown off, and with copious amounts of foul-smelling creamy pus, was disclosed in the right gutter and pelvis. The remains of the appendix were removed. Many loops of darkish, moderately compromised small bowel were freed from their dense fibrinous adhesions about the mass in the pelvis. Collapsed loops of distal bowel immediately enlarged. A Miller-Abbott tube which had been placed in the stomach just before operation was milked manually through the duodenum into the upper jejunum. The closure was accomplished after the viability of all loops of bowel had been established.

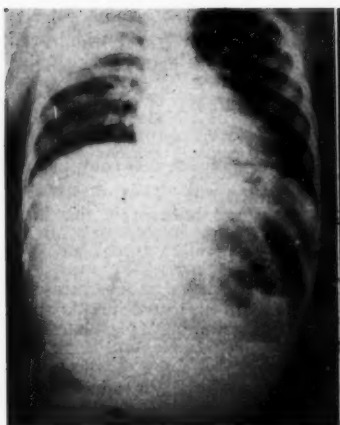


Fig. 1. X-ray of chest and abdomen taken on entry to hospital, showing increased density over the right upper lung field and marked small bowel distention with fluid levels.

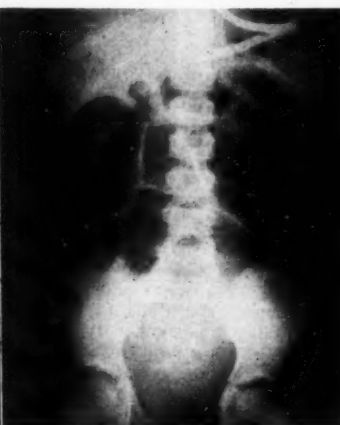


Fig. 2. Repeat x-ray of abdomen taken nine hours after entry to hospital, showing progressive dilatation of small bowel.

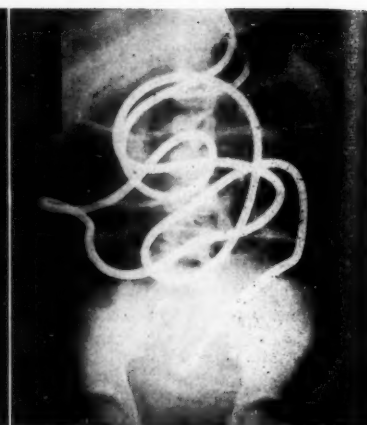


Fig. 3. X-ray of abdomen taken eight days after the initial operation, showing recurrent dilated loops of small bowel in spite of the adequate positioning of the Miller-Abbott tube.

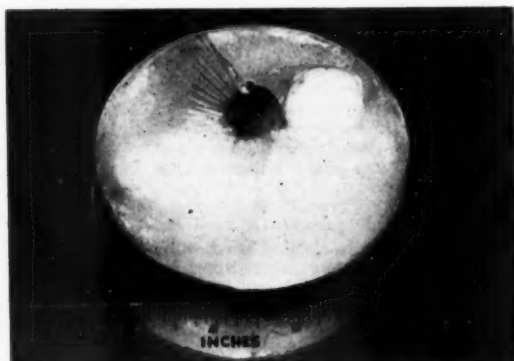


Fig. 4. Photograph of distended Miller-Abbott balloon, 12.4 cm. in diameter, full of coagulated Varco's solution as firm as cement.

Postoperatively this boy's temperature rose to 104.2° F his pulse ranged from 110 to 150, and respirations were from 34 to 48 per minute. Penicillin, streptomycin, sulfadiazene, Miller-Abbott tube with Wangenstein suction, parenteral feedings and high concentration oxygen resulted in a definite improvement by the third postoperative day. By this time the Miller-Abbott tube had been satisfactorily advanced to the six-foot mark and its position was checked by x-ray. Although some flatus was passed by rectum and fluids were being taken by mouth, the abdominal distention persisted and the abdomen remained extremely quiet. By the fourth postoperative day the Miller-Abbott tube could be clamped off for two hours, but "gas pains" were too severe to justify the removal of the tube. At this time Varco's highly nutritious fluid was started orally, 30 c.c. every three hours. By the seventh postoperative day the boy was taking 75 c.c. of Varco's solution every three hours and was maintaining his proteins largely by the oral route. On this day he had his first soft bowel movement. Nevertheless, when his tube was clamped off for more than

two hours, the patient had such severe pains he would scream to have the tube reattached to suction.

On his twelfth postoperative day, ten days after the administration of pooled plasma and three days after the discontinuance of sulfadiazene therapy, the boy became icteric. His temperature went up from normal to 101.6° F., and his pulse rose from 80 to 130. The abdomen was still distended. Bowel sounds were normal in pitch and frequency. The liver edge was down three finger breadths and was tender. The Miller-Abbott tube was still at the six-foot mark and irrigated well. An x-ray of the abdomen outlined a mass in the left lower abdomen and pelvis where the patient had maximal tenderness. By fluoroscopy both diaphragms moved freely on deep respiration.

The next day his jaundice had increased. A rough, systolic heart murmur, not heard before, became audible at the apex. On this day the tube irrigated less well than previously, although the balloon could be deflated and inflated with ease. By the sixteenth postoperative day his recurrent distention was severe. Upon repeated x-ray study there was again considerable gaseous distention of multiple loops of small bowel. Nasoduodenal suction was put down in addition to the Miller-Abbott tube, and high concentration oxygen therapy was re-instituted. The following day the small bowel was fairly markedly deflated and the stomach was emptied with the second tube positioned in the duodenum. The jaundice had begun to lessen. The rough heart murmur persisted. The pulse, nevertheless, was rapid, and the boy appeared desperately ill.

By the eighteenth postoperative day his distention had recurred. X-rays showed again increased dilatation of the loops of small bowel (Fig. 3). The larger lumen of the Miller-Abbott tube mechanically was sucking out well, but the balloon could not be inflated or deflated. Upon noting this an effort was made to withdraw the Miller-Abbott tube. This occasioned great pain in the left lower quadrant, and the tube could not be withdrawn. A second operation was immediately carried out.

Through a left rectus incision the abdomen was opened. Nearly all loops of small and large bowel were matted together with fibrinous and fibrous adhesions. The Miller-Abbott tube had failed to decompress the dilated loops of small bowel through which it passed. In the process of freeing the adhesions obstructing loops of small intestine at the brim of the pelvis, a gangrenous loop of

terminal ileum was broken open and a large Miller-Abbott balloon, nearly 13 cm. in diameter, full of coagulated Varco's solution as firm as cement, was delivered into the field (Fig. 4). The tube, together with its balloon, was amputated *in situ*. The nonviable segment of ileum was resected and an end-to-end anastomosis was performed.

Postoperatively the boy developed a hypertension of 175 over 130. His temperature ranged from 101 to 102.5° F. His pulse remained about 150. Twenty-four hours after his second operation he began to expel flatus satisfactorily. His newly inserted Miller-Abbott tube worked nicely. Thirty-six hours after the operation his jaundice became intense. Four short-lasting right-sided convulsions followed. Forty-eight hours after operation his seizures became more frequent, longer lasting and more severe. Unconsciousness followed, and he died on his third postoperative day.

Discussion

It is not within our province to say that this boy would have recovered had he not had the development of this rare and unfortunate complication dependent on the administrative care of his Miller-Abbott tube. All one can say is that equipment in which adapters can be so readily transposed, mislabelled or mishandled is subject to improvement. In 1947 Honor⁴ reported his experiences with a newly designed double lumen tube, the merits of which seem worthy of presentation here.

The Honor tube is made of a plastic, Geon polyvinyl chloride, impregnated with a nontoxic radiopaque material. The larger lumen for suction has a bore equivalent to large-sized French catheters (Nos. 12-14-16-18). The wall is slightly thinner than that of the Miller-Abbott tubing. The smaller lumen connected to the balloon just admits a No. 18 or 19 needle. The two tubes are extruded at once from a single die, giving the double lumen tubing a smooth contour. The arrangement of the metal adapters is conducive to simple interpretation, as well as simple care (Fig. 5).

This tube fulfills all the requirements originally set down by Abbott and Johnson¹: there are two lumens, one for aspiration of intestinal contents and the other to introduce air or mercury into the balloon; it is moderately flexible but doesn't kink or collapse on suction; it is nontoxic and radiopaque. In addition, it withstands boiling without rapid deterioration; it is relatively inexpensive, and intestinal odors can be removed by washing.

Although to date our experience with the small-sized Honor tube in infants and children is a small one, we are eminently satisfied with its performance. Repetitions of the rare complication of intestinal intubation described above have not occurred and seem unlikely to occur with this arrangement of adapters and the size of the smaller lumen.

Summary

A recapitulation is made of some of the more common complications which have been encountered in the use of the Miller-Abbott tube, especially in children.

The case of a rare and serious complication following intestinal intubation in a nine-year-old boy is presented.

The merits of the Honor tube are discussed as a means of avoiding such a serious complication.

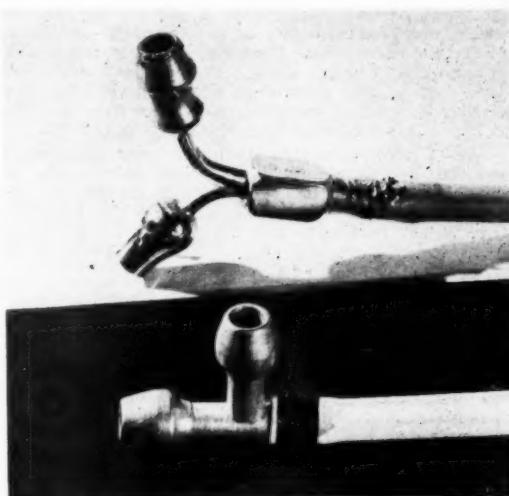


Fig. 5. Photographs of the flanged ends of the Miller-Abbott tube (above) and the Honor tube (below).

References

1. Abbott, W. O., and Johnson, C. G.: Intubation studies of the human small intestine: X. A nonsurgical method of treating, localizing and diagnosing the nature of obstructive lesions. *Surg., Gynec. & Obst.*, 66:691, 1938.
2. Berger, L., and Acha, S.: Perforation of the small intestine by the Miller-Abbott tube. *Surgery*, 22:648, 1947.
3. Harris, F. E.: Intestinal intubation in bowel obstruction: technique with new single-lumen mercury-weighted tube. *Surg., Gynec. & Obst.*, 81:671, 1945.
4. Honor, W. H., and Smathers, H. M.: double-lumened plastic tube for intestinal intubation. *Arch. Surg.*, 55:498, 1947.
5. Iglaue, S., and Molt, W. F.: Severe injury to the larynx resulting from the indwelling duodenal tube. *Ann. Otol., Rhin. & Laryng.*, 48:886, 1936.
6. Kaufman, L. R.; Serpicio, S., and Mersheimer, W.: A rare complication of the Miller-Abbott tube. *Am. J. Surg.*, 57:173, 1942.
7. Mahon, G. D.: Use and abuse of the indwelling tube in abdominal surgery. *Dallas M. J.*, 30:96, 1944.
8. Vinson, P. P.: Cicatricial stricture of the esophagus. *West Virginia M. J.*, 37:349, 1941.
9. Walker, I. J.: Discussion following the paper of McKittrick, L. S., and Sarris, S. P.: Acute mechanical obstruction of the small bowel: its diagnosis and treatment. *New England J. Med.*, 222:611, (April 11) 1940.
10. Wangenstein, O. H.: Experiences with suction in the treatment of intestinal obstruction. *Surg., Gynec. & Obst.*, 68:851, 1939.

Discussion

DR. GILBERT COTTAM: I would like to ask about the diagnosis of the boy in the case. He had a chest infiltration, a generalized peritonitis and a ruptured appendix, but I am wondering if a diagnosis of actinomycosis might not have been considered.

DR. SIVERTSEN: I am reluctant to say anything about this paper. It has been my unfortunate experience to have had two Miller-Abbott tubes become knotted in the intestinal tract. The first case was that of a fourteen-year-old boy from whom we were able to remove the tube without difficulty. The other was an eighty-two-year-old lady who had had a resection of the bowel because of obstruction. The tube became knotted at the end near the sac or bulb which receives the mercury, gas or air. In this case the tube itself was so tightly knotted that the air in the bulb could not be expelled. Consequently, it was with difficulty that we were able to pull it through

the intestinal tract. It became a question, before this was accomplished, whether or no we should operate to relieve the obstruction. However, we were finally able to remove it. She got along very well for four or five days, but on the sixth day after removal she died, possibly because of intussusception. We were not able to obtain a postmortem examination.

Also, I am reluctant to say much about mercury. I was the first to use it in the Miller-Abbott tube, as valuable in passing the tube through the pyloric end of the stomach. I think you will find the idea was given to Dr. Wangenstein in 1941, and he has given me credit for this original idea in the second edition of his book on intestinal obstruction.

DOCTOR COTTAM: I should like to tell Dr. Sivertsen about a description of a diverticulum of the pharynx which led to death, in which the doctors used mercury, thinking that the obstruction caused by a diverticulum was of a different nature. At autopsy, a large amount of unpassed mercury was found. This was the famous case reported by Dr. Abraham Ludlow, surgeon, in 1767. (See my article in *Pharyngeal diverticula* in *MINNESOTA MEDICINE*, April, 1934, pp. 222-226.)

ACOUSTIC NEUROMAS

WILLIAM T. PEYTON, M.D.
Minneapolis, Minnesota

The treatment of acoustic neuromas has undergone a gradual evolution since the first attempt was made by McBurney⁹ in 1891 to remove a cerebellopontine angle tumor. Acoustic neuromas are usually one of the most easily diagnosed intracranial tumors, yet patients with these tumors still come for operation in the final stages of their untreated evolution. In these late stages, not only is the risk of removal enhanced but the residual sequellae are more severe. Therefore, a review of some of the features of this tumor and a report on personal experience in its treatment should be of value.

Gross Pathology

Acoustic neuromas apparently arise in that part of the eighth nerve which lies in the internal auditory canal. As they grow and expand, they protrude through the foramen acousticum into the pontine cistern.

Because they grow slowly and gradually displace the surrounding structures in the cerebellopontine angle, they may attain a surprisingly large size, notwithstanding the small space in which they originate. Weight is not frequently determined because they are removed piecemeal with curet and brain sucker, but one weighing 154 grams was reported by Sachs.¹³ To obtain such size they displace the pons, medulla and cerebellum, becoming adherent and embedded in them. The tumor erodes the petrous pyramid and projects itself into every available crevice, including an extension through the tentorial notch. Thus it eventually occludes the cisterna at the tentorial notch and blocks the cerebrospinal fluid as it

passes upward to be absorbed over the surface of the cerebral hemispheres. Intracranial pressure rises, and death occurs.

Symptoms

In the typical case, as one might expect, there is a chronological progression of symptoms. At first only the eighth nerve is involved; later, the function of the cranial nerves in the neighborhood and then the brain stem and cerebellum are affected, and finally symptoms of increased intracranial pressure are superimposed. Early irritation of the eighth nerve produces tinnitus aurium. Compression and destruction of the eighth nerve produces loss of hearing on the involved side. The cranial nerves in the angle become involved, especially the fifth nerve. Decreased corneal reflex on the side involved is, as a rule, the earliest finding in addition to disturbed eighth nerve function. Later, signs of cerebellar dysfunction appear, and eventually there is papilledema.

Differential Diagnosis

Other lesions, neoplastic, vascular or degenerative, which occur in the cerebellopontine angle may simulate acoustic neuromas. The differentiation of these lesions is often difficult, and sometimes only after exploration of the angle is the true nature of the lesion determined.

Treatment

Surgical removal, partial or complete, is now recognized as the only proper treatment for acoustic neuroma. Surgery in the treatment of acoustic neuromas has undergone a gradual evolution, from a very crude finger enucleation to partial removal by intracapsular enucleation, and finally to total enucleation, which seems to be more or less the operation of preference with neurosurgeons today.

When McBurney⁹ attempted to remove one of these tumors, and for many years, thereafter, surgery for brain tumors was very unsatisfactory, and especially so for tumors of the posterior fossa. Most operations at that time were for tumors of the cerebrum in the region of the motor cortex where the danger of operation was lowest.^{1,16} After this early unfavorable experience it was not until about 1905 that surgeons again became less reluctant to operate for tumors of the cerebellum.¹⁴

The operative mortality reported for finger enucleation of angle tumors was 67 to 87 per cent.^{8,12,15,16,17} Cushing² operated upon his first case of acoustic neuroma in 1906 and began a fundamental revision in the surgery for acoustic neuroma when he performed an intracapsular enucleation of the growth. Mortality was immediately reduced by this intracapsular enucleation until, with increasing experience and modifications in technique the mortality was, in Cushing's last seventy-six cases, only 8 per cent. Many general improvements in neurosurgical technique contributed to this improvement. A few of the more important are (1) bilateral cerebellar exposure through a cross bow incision (1905); (2) release of intracranial pressure by tapping the lateral ventricle during operation, which was introduced in 1903

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From the Department of Surgery, Division of Neurosurgery, University of Minnesota.

and became routine by 1910; (3) use of suction instead of sponges to evacuate blood and fluid from the wound; (4) silver clips to occlude bleeding vessels (1909), and (5) late in the period, 1926, introduction of high frequency cautery in neurosurgery.

Dandy³ in 1922 reported an operation for total removal of acoustic tumors which was an extension of Cushing's intracapsular removal, to include total removal of the capsule after the content had first been removed with a curet. Again in 1925,⁴ and also in 1934,⁵ Dandy reported improvements in this operation.

Olivecrona¹⁰ began to perform Dandy's radical removal in 1931 and has become one of the most enthusiastic advocates of total removal.¹¹

With the partial intracapsular removal of Cushing there were many recurrences within three or four years after operation, and in some, not enough of the upper part of the tumor was removed to re-establish the flow of cerebrospinal fluid, making early reoperation necessary.

With total removal, recurrence does not occur, but the technique is more difficult, especially when the tumor is large and adherent to the brain stem. It is very difficult to remove totally a large acoustic neuroma and preserve the seventh nerve.

The operative mortality reported for Cushing's intracapsular removal is 8 to 28 per cent,^{2,8,10,11} and for total removal, 7 to 19 per cent.^{7,11,12}

It is the policy of this author to remove acoustic neuromas totally if this is technically possible, but it still seems to be advisable to be content with partial removal of some of the very large tumors which are very adherent to the brain stem, and also of some of those with extreme erosion of temporal bone.

Since 1940 the author has done fourteen total removals with three postoperative deaths, a mortality of 21 per cent. The facial nerve was preserved anatomically in three cases, and there is good function of it in two of the patients. The other patient had not recovered facial nerve function when last seen.

References

1. Bergman, E. V.: System of Practical Surgery. Vol. 1, p. 318. New York: Lea Bros. and Co., 1:318, 1904.
2. Cushing, H.: Tumors of the Nervus Acousticus. Philadelphia: W. B. Saunders Co., 1917.
3. Dandy, W.: An operation for the total extirpation of tumors in the cerebellopontine angle. Bull. Johns Hopkins Hosp., 33:344, 1922.
4. Dandy, W.: An operation for the total removal of cerebellopontine (acoustic) tumors. Surg., Gynec. & Obst., 41:129, 1925.
5. Dandy, W.: Removal of cerebellopontine (acoustic) tumors through a unilateral approach. Arch. Surg., 29:337, 1934.
6. Fumola, G.: Das Syndrom der Kleinhirnbruchwinkeltumoren. Arch. f. Psychiat. und Nervenkh., 55:781, 1915.
7. Horrax, G., and Poppen, J.: Experiences with the total and intracapsular extirpation of acoustic neuromata. Ann. Surg., 110:513, 1939.
8. List, C. F.: Die operative Behandlung der Acusticusneurinome und ihre Ergebnisse. Arch. f. klin. Chir., 171:281, 1932.
9. McBurney, C., and Starr, A.: A contribution to cerebral surgery. Am. J. M. Sc., 105:361, 1893.
10. Olivecrona, H.: Technik und Ergebnisse der Radical operation by acousticustumoren. Arch. f. klin. Chir., 180:445, 1934.
11. Olivecrona, H.: Acoustic tumors. J. Neurol. & Psychiat., 3:141, 1940.
12. Revilla, A. G.: Neurinomas of the cerebellopontine recess. Bull. Johns Hopkins Hosp., 80:254, 1947.
13. Sachs, E.: The Care of the Neurosurgical Patient. St. Louis: C. V. Mosby Co., 1945.

14. Starr, A.: Tumors of the acoustic nerve, their symptoms and surgical treatment. Am. J. M. Sc., 39:551, 1910.
15. Stewart, T., and Holmes, G.: Symptomatology of cerebellar tumors. A study of forty cases. Brain, 27:522, 1904.
16. Tooth, H. H.: The treatment of tumors of the brain and indications for operation. 17th Internat. Congress of Med. Sec., Sect. XI, Neuropathology, 161, 1913.
17. Von Eiselsberg, A. F., and Ranzi, E.: Ueber die chirurgische Behandlung der Hirn und Rückenmarkstumoren. Gesellschaft f. chir. Verhandlungen, 42:514, 1913.

Discussion

DR. HAROLD BUCHSTEIN: The acoustic neuroma, in many ways, is the most interesting of intracranial tumors. It is a benign lesion. It is so situated that it produces quite a characteristic syndrome which permits its recognition in an early stage. As a result, neurosurgeons have expanded a good deal of effort in developing the technique of surgical treatment of this lesion. I should like to commend Dr. Peyton on his results in the treatment of this tumor. His figures are admirable indeed and certainly compare very favorably with other published series. Usually a tumor of the acoustic nerve does not present vertigo as a prominent complaint. Tinnitus tends to disappear with time. When we see these patients, their complaint is one of deafness and cerebellar difficulty, or a complaint relating to increased intracranial pressure.

DR. WALLACE P. RITCHIE: I feel very fortunate, not only in having heard Dr. Peyton's discussion, but also because everything worth while that I know about neuromas I have learned from Dr. Peyton. No matter what your surgical specialty may be, I am sure that Dr. Peyton's extremely remarkable results are obvious. If there is any operation in neurosurgery which requires a top performance not only of the surgeon, but of his assistants, the nursing staff, and the anesthesiologist, it is in this particular operation.

I wish to add one comment in regard to the facial paralysis which follows many of these operations. It is very disfiguring particularly to women. I believe the method of choice is to do a facial and seventh nerve anastomosis. Inasmuch as it takes some months for the nerve to regenerate so that the face will assume a more symmetrical attitude, I believe that it is well to insert, at the same time, a fascial graft from the temporal muscles to the corner of the eye and the corner of the mouth. In this way a patient may return to work a great deal sooner, and will not be embarrassed by the disfigurement of a full facial paralysis.

DR. HORACE SCOTT: One question: What is the differential diagnosis between Ménière's syndrome and acoustic neuromas?

DR. PEYTON: Bilateral acoustic neuromas are present in about 3 or 4 per cent of all acoustic neuromas, and they occur in young people who have generalized neurofibromatosis. In Dandy's 154 cases, the neuromas were bilateral in 4 per cent. In our relatively small group they have been more numerous, but this is no doubt due to wide variation of chance in a small series. We have had one case in which bilateral tumors were found at autopsy, and a second in which an acoustic neuroma was removed from one side, and the patient now has symptoms and signs of a second tumor on the other side.

The differential diagnosis between Ménière's disease and a small acoustic neuroma is at times very difficult. But, in general, between the attacks of Ménière's disease there are no symptoms or findings except loss of eighth nerve function. In acoustic neuroma, symptoms are apt to be continuous; in Ménière's disease, they are apt to be intermittent. The acoustic neuroma progresses to involve other nerves and structures in the cerebellopontine angle.

There are lesions which occur in the cerebellopontine

(Continued on Page 1032)

♦ Reports and Announcements ♦

AMA INTERIM MEETING

The second AMA Interim Meeting will be held in St. Louis, Missouri, November 30 to noon December 3, 1948.

The first national Medical Public Relations Conference will be held at the Statler Hotel on Saturday evening, November 27 under the sponsorship of the AMA. The annual meeting of Editors and Secretaries of the state medical associations will be held on Sunday and Monday, November 28 and 29, preceding the AMA meeting.

As was the case last year in Cleveland, the scientific program of the Interim Session is planned especially for general practitioners. A wide variety of clinical conferences and exhibits of clinical and pathological material will be correlated with the lecture meetings.

Members planning to attend the St. Louis meeting are urged to make use of the registration form which will appear every two weeks in the *AMA Journal*. Requests for reservations should be received before November 9, 1948.

AMERICAN COLLEGE OF SURGEONS HOSPITAL CONFERENCE

The twenty-seventh annual Hospital Standardization Conference will be held at the Biltmore Hotel, Los Angeles, from October 18 to 22, in conjunction with the thirty-fourth annual Clinical Congress of the American College of Surgeons, according to an announcement by Dr. Malcolm T. MacEachern, Associate Director and Chairman of the Administrative Board. A galaxy of hospital authorities from all parts of the United States and Canada will participate as speakers and discussion leaders in the five-day program, the last day of which, Friday, October 22, will be devoted to study tours of hospitals in Los Angeles and vicinity with the co-operation of the Southern California Hospital Council, of which Paul C. Elliott, Superintendent, Hollywood Presbyterian Hospital, is President. The hospital representatives are invited to attend the meetings of the Clinical Congress.

NATIONAL SOCIETY FOR CRIPPLED CHILDREN AND ADULTS

The 28th annual convention of the National Society for Crippled Children and Adults, Inc., will be held at the LaSalle Hotel, Chicago, November 15-17, 1948.

Many outstanding speakers in the fields of medicine, health and education will be on hand to present facts on progress in work with the handicapped during the past year, according to Lawrence J. Linck, executive director.

The convention will be attended by physicians, therapists, educators, workers with the handicapped and representatives of National Society's more than 2,000 state and local units throughout the United States, Canada, Alaska and Hawaii.

OMAHA MID-WEST CLINICAL SOCIETY

The Omaha Mid-West Clinical Society will hold its sixteenth annual assembly at the Hotel Paxton, Omaha, Nebraska, October 25 to 29, inclusive.

The television projection of a hospital clinic in three rooms of the Paxton Hotel will be an outstanding innovation. On Friday morning, there will be a clinicopathologic conference and a panel discussion on "The Doctor in Court." Six outstanding physicians and attorneys will discuss such subjects as: (1) The Medical Expert Witness in Casualty Cases; (2) The Psychiatrist in Civil and Criminal Cases; (3) The Pseudo-Medical Expert Witness; (4) The Minnesota Medical Testimony Plan; and (5) the Necessity for Reform in Court Procedure Governing Medical Testimony.

Further information may be obtained by writing the Omaha Mid-West Clinical Society, 1031 Medical Arts Building, Omaha 2, Nebraska.

VAN METER PRIZE AWARD

The American Goiter Association again offers the Van Meter Prize Award of Three Hundred Dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the annual meeting of the Association which will be held in Madison, Wisconsin, May 26, 27, and 28, 1949, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed three thousand words in length; must be presented in English; and a typewritten double spaced copy sent to the Corresponding Secretary, Dr. T. C. Davison, 207 Doctors Building, Atlanta 3, Georgia, not later than March 15, 1949. The committee, that will review the manuscripts, is composed of men well qualified to judge the merits of the competing essays.

A place will be reserved on the program of the annual meeting for presentation of the Prize Award Essay by the author, if it is possible for him to attend. The essay will be published in the annual Proceedings of the Association. This will not prevent its further publication, however, in any journal selected by the author.

UROLOGY AWARD

The American Urological Association offers an annual award of \$1,000.00 (first prize of \$500.00, second prize, \$300.00, and third prize, \$200.00) for essays on the result of some clinical or laboratory research in Urology. Competition shall be limited to urologists who have been in such specific practice for not more than five years and to residents in urology in recognized hospitals.

(Continued on Page 1030)

“...such as Metamucil...”*

For the treatment of the spastic colon the author suggests diet, elimination of the nervous element and “bulk producers.” As examples of these he lists “agar-agar, in finely powdered form, in flakes, or in cereal-like form; derivatives of psyllium seed, such as Metamucil”*

METAMUCIL

“SMOOTHAGE” IN CONSTIPATION

—“encourages elimination by the formation of a soft, plastic, water-retaining gelatinous residue in the lower bowel.”†

Metamucil is the highly refined mucilloid of *Plantago ovata* (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent.



SEARLE RESEARCH IN THE SERVICE OF MEDICINE

Metamucil is the registered trademark of G. D. Searle & Co., Chicago 80, Illinois.

*Glaske, W. H.: *Spastic Colon*, *M. Clin. North America* 26:805 (May) 1942.

†Council on Pharmacy and Chemistry: *New and Nonofficial Remedies*, 1947, Philadelphia, J. P. Lippincott Company, 1947, p. 320.

REPORTS AND ANNOUNCEMENTS

UROLOGY AWARD

(Continued from Page 1028)

The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Biltmore Hotel in Los Angeles, May 16-19, 1949.

For full particulars write the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis 3, Tennessee. Essays must be in his hands before February 15, 1949.

COURSE IN CLINICAL ALLERGY

The Northwestern University Medical School will conduct a five-day course in clinical allergy at Thorne Hall, in the medical school in Chicago, from October 25 to 29, 1948. The course is under the sponsorship of the American Academy of Allergy. Lectures and demonstrations on the many phases of allergy by members of the Northwestern University Medical School faculty will occupy mornings and afternoons. A dinner and round-table discussion will be held on Tuesday, October 26.

The fee of \$45 includes the price of the dinner and mimeographed notes. Attendance is limited to members of the profession and a limited number of residents and interns. Inquiries should be addressed to Dr. Samuel M. Feinberg, Northwestern University Medical School, 303 East Chicago Avenue, Chicago, Illinois.

COURSES IN PSYCHOSOMATIC MEDICINE TRAUMATIC SURGERY AND ORTHOPEDICS

An intensive two-week course in psychosomatic medicine will be given at the Center for Continuation Study of the University of Minnesota. The course is designed to assist the general physician in the diagnosis and treatment of psychosomatic problems. The course will be presented during the two-week period from September 20 to October 2. Enrollment will be limited to twenty-five physicians, because much of the material will be presented by means of group discussions and supervised clinical work.

The Department of Postgraduate Medical Education also announces a course in traumatic surgery and orthopedics, to be given for general physicians, October 7 to 9, in the Center for Continuation Study of the University of Minnesota. Registration for this course will be limited to 100 physicians.

COURSE ON TUBERCULOSIS

A course on tuberculosis and other diseases of the chest, for general practitioners, will be held October 18, 19, and 20 at the University of Minnesota's Center for Continuation Study in Minneapolis.

The American Trudeau Society, the University of Minnesota and the state Christmas Seal organization are co-sponsors of the course. County Christmas Seal associations are also participating by appropriating sums towards the expenses of two doctors from each district medical society to attend the course.

Subjects to be covered in the three-day meet, which

will be a complete and condensed survey of tuberculosis and other diseases of the chest, are: physical examination in the diagnosis of tuberculosis; differential diagnosis of hemoptysis, pleurisy and pleural effusion; skin test in the diagnosis of chest diseases; laboratory aids in the diagnosis of diseases of the chest; family physician and chest x-ray surveys; chronic bronchitis and bronchiectasis of the lungs; fungus diseases of the chest; immunization in tuberculosis; antibiotics and chemotherapy in the treatment of tuberculosis.

TWIN CITIES NOW RESERVE MEDICAL CENTER

Colonel Raymond R. Tourtillott, State Senior Instructor for the Organized Reserve Corps, in a special release to MINNESOTA MEDICINE pays tribute to the efforts of Twin Cities Medical Department Officers. He states,

"Through aggressive organization and a show of interest by all concerned, the Organized Reserve Medical Units of the Twin Cities have now built their strength to where they may claim to be one of the most highly concentrated Medical organizations in the Northwest.

"Meeting at Fort Snelling, the organization contains eleven separate units and 617 members.

"The Units are headed by a Headquarters Hospital Center and number a General and a Station Hospital among them. There are also two large laboratory units, a Mobile Surgical Hospital, Medical Collecting Co., Malaria Survey Detachment, Malaria Control Detachment and a Medical Base Depot Co. A medical composite group contains additional medical officers with a wide variety of technical training.

"These units were organized by local Reserve Officers who served in World War II and are determined to support National Security through their efforts. The units are strong in numbers and have a healthy turnout at training periods. A more vigorous training program will get under way as soon as alterations are completed in the Medical Center at Fort Snelling, the Headquarters of these Units.

"Credit for organizing these Units goes to the Unit Commanders. As they do not wish their efforts to be connected with publicity, the Army bows to their modesty and patriotism and salutes their achievements. We can look to the words of Daniel Webster, 'God grants liberty only to those who love it, and are always ready to guard and defend it.'"

MINNESOTA PUBLIC HEALTH CONFERENCE

Doctors in all branches of the profession are cordially invited by the Minnesota Public Health Conference to attend the all-day session of the Conference at the Saint Paul Hotel, Saint Paul, on Friday, October 8, 1948.

Of special interest will be the noon luncheon for doctors and health officers, when the Minnesota Board of Health will meet to discuss with those present state and local health problems.

In charge will be Dr. T. B. Magath of Rochester, who is Board of Health president. Other Board members include Dr. Ruth S. Boynton, vice president; Dr. A. J. Chesley, secretary and executive officer; Dr. C. V. Netz; Mr. F. E. Bass; and Dr. T. H. Sweetser; all of whom are from Minneapolis; Dr. Sidney Hedeon of

REPORTS AND ANNOUNCEMENTS

St. Paul; Dr. F. W. Behmler of Morris; Dr. W. L. Webb, who lives in Fairmont; and L. M. Thompson of Little Falls.

This session will give all doctors concerned with public health a chance to bring their problems up for general discussion. Matters such as full-time health units will probably be aired.

At the general afternoon session, Dr. Donald A. Dukelow of Minneapolis, Conference executive secretary, will lead the panel discussion on the Pros and Cons of Local Health Services for Minnesota. Discussants will be Howard Ottinger and Harry L. Wahlstrand of the State Legislature, Louis C. Dorweiler who directs the Legislative Research Committee, and J. S. Jones of the Farm Bureau who serves as second vice president of the Minnesota Committee on Local Health Services.

Evening speaker will be Miss Katherine F. Lenroot, chief of the United States Children's Bureau. Toastmaster will be Dr. Mario Fischer of Duluth.

All doctors interested in public health are eligible to become associate members of the Minnesota Public Health Conference, upon payment of a one-dollar membership fee. Doctors active in public health work of any kind may become active members of the Conference, with dues of two dollars a year. Memberships may be obtained at the Conference meeting, or from Dr. Donald A. Dukelow, Citizen's Aid Building, Minneapolis.

HEALTH DAYS

Health Days are scheduled for every section of Minnesota this fall, the Minnesota Department of Health announces.

Starting in southwestern Minnesota last February, when more than a thousand people assembled for a Health Day in Worthington, the idea of getting people together to discuss the health needs of their communities has spread all over the state.

On September 9 a very successful Health Day was held at Willmar for Traverse, Stevens, Pope, Swift, Lac Qui Parle, Chippewa, Yellow Medicine, Renville, Lincoln, Lyon, Redwood, Kandiyohi, Meeker, and Big Stone counties.

Plans are under way for the following Health Days:

September 29 at Fergus Falls for Clay, Becker, Otter Tail, Wilkin, Grant, and Douglas counties.

October 7 at Crookston for Kittson, Roseau, Marshall, Polk, Red Lake, Pennington, Lake of the Woods, Mahnomon, and Norman counties.

October 13 at Mankato for McLeod, Carver, Scott, Sibley, Le Sueur, Nicollet, Brown, Blue Earth, Watonwan, Waseca, Martin, and Faribault counties.

October 15 at Duluth for Lake, Cook, Carlton, Pine, and St. Louis counties.

Governor Youngdahl is speaking at evening meetings at each of these Health Days. Programs will include keynote speeches in the morning, also group discussion on health problems of local concern. Health films will be shown in the afternoon, panels will discuss community health problems, and there will be several ten-minute talks by local people. High school bands will furnish

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1. Kasper, J. A. and Jeffrey, I. A.: A Simplified Benedict Test for Glycosuria, *Amer. J. Clin. Pathology*, 14:117-21 (Nov.) 1944.

2. Haid, W. H.: The Use of Screening Tests in the Clinical Laboratory, *J. Amer. Med. Tech.*, 8:606-14 (Sept.) 1947.

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entertainment at the evening meetings before the governor speaks.

Sponsoring groups for the fall health days are the Minnesota State Medical Association and its Woman's Auxiliary. The Minnesota Department of Health is assisting in organization and publicity.

It is the intention that all these health days will be followed, as in Southwestern Minnesota, by the formation of local or county health councils.

RIGLER LECTURE IN RADIOLOGY

Dr. Merrill C. Sosman, professor of radiology at Harvard university, will deliver the annual Dr. Leo G. Rigler lecture in radiology at the University of Minnesota Thursday, October 28, at 8 p.m. in the Minnesota Museum of Natural History auditorium.

Dr. Sosman, who will speak on the subject "Roentgenological Aspects of Heart Disease," is the contributor of numerous articles on the diagnosis and treatment of diseases or tumors by x-ray to scientific publications.

The annual Rigler lectureship was established in 1944 by colleagues, former students and friends of the roentgenologist in recognition of his contributions to teaching and research in radiology. He has been chief of the department of radiology at the University of Minnesota since 1926.

During the week of Dr. Sosman's lecture, from October 25-30, a continuation course in cardiovascular roentgenology, designed primarily for radiologists but open also to a limited number of internists, pediatricians and surgeons, will be held at the University's Center for Continuation Study.

CRIPPLED CHILDREN CLINIC SCHEDULE

Clinics for crippled children are being held in ten Minnesota cities this fall to serve residents of forty-three counties. The clinics are sponsored by the Crippled Children Services of the Medical Services Unit of the Division of Social Welfare. All clinics are held on Saturday except the two Friday ones indicated in the 1948 schedule which follows:

Place	Date	Building	Counties
Winona	9-11-48	Central School	Winona, Houston, Wabasha, Olmsted, Fillmore
Fergus Falls	9-18-48	High School	Ottertail, Wilkin
Remidji	9-25-48	High School	Beltrami, Lake of the Woods, Clearwater, Hubbard
Willmar	10-8-48 (Friday)	Auditorium	Kandiyohi, Meeker, Swift, McLeod, Chippewa, Renville
Marshall	10-9-48	High School	Lyon, Lincoln, Redwood, Yellow Medicine, Lac qui Parle
Virginia	10-16-48	Technical High School	St. Louis
Crookston	10-23-48	High School	Polk, Mahnomen, Norman
Cambridge	10-29-48 (Friday)	Epileptic Colony Hospital	Isanti, Anoka, Kanabec, Chisago, Mille Lacs
Little Falls	10-30-48	High School	Morrison, Todd, Mille Lacs
Mankato	11-6-48	Franklin School	Blue Earth, Sibley, Nicollet, Le Sueur, Watonwan, Brown, Waseca, Martin, Faribault

RED RIVER VALLEY SOCIETY

A special summer meeting of the Red River Valley Medical Society, with nearly fifty physicians in attendance, was held in Thief River Falls on July 23.

Scientific papers were presented by Dr. Thomas J. Dry and Dr. Lawrence M. Randall, both from the Mayo Clinic in Rochester. The Blue Shield plan was explained in detail by Arthur Calvin, executive secretary of the Blue Cross organization. Also appearing on the program was Manley Brist, attorney for the Minnesota State Medical Association.

In charge of the program was Dr. Martin Bechtel, Warren, president of the society, assisted by Dr. Russell Sather of Crookston, secretary.

CLINICAL-PATHOLOGICAL CONFERENCE

(Continued from Page 1004)

edema in the remaining eighty-four patients of the entire study.

Of twenty-nine patients with hydronephrosis of varied etiology, twelve were due to benign prostatic hypertrophy and twenty-four had pyelonephritis. Of the twenty-four patients, twenty had bronchopneumonia, while only seventeen other cases of bronchopneumonia were found in the other seventy-six patients in the study. Seventeen out of twenty other serious infectious complications occurred in the pyelonephritic group. Not a single case of the eight patients with primary pyelonephritis was diagnosed properly.

In comparing these findings with studies of others, it should be borne in mind that many patients with serious primary kidney diseases described in our necropsy records were not included in this study, when it was felt that renal failure did not contribute significantly to the causes of death.

References

1. Bell, E. T.: Renal diseases. Philadelphia: Lea and Febiger, 1946.
2. Joffe, H. H.; Hatch, W. E., and Wells, A. H.: Congenital urethral valve, *Minnesota Med.*, 30:56-59, (Jan.) 1947.
3. Wells, A. H.: Bilateral cortical necrosis of kidneys. *Minnesota Med.*, 27:375, (May) 1944.

ACOUSTIC NEUROMAS

(Continued from Page 1027)

angle and give us equally as much difficulty in the differential diagnosis. They are degenerative lesions, vascular lesions, or other tumors in the angle. I might mention the other operations we have performed for lesions in the cerebellopontine angle during the period in which these twenty acoustic neuromas were encountered. There were three cases of meningioma in the angle, two gliomas in the pons, one tuberculous granuloma, one case of aberrant artery which passed around the eighth nerve producing deafness and vertigo, one case of trigeminal neuralgia with loss of hearing on the side of the pain (for this reason rhizotomy was done in the posterior fossa instead of the usual subtemporal rhizotomy), and one case which was explored and nothing found.

◆ Woman's Auxiliary ◆

ANNUAL MEETING

On Monday, June 7, the meetings of the Woman's Auxiliary to the Minnesota State Medical Association opened with a Board meeting and luncheon in the Italian Room of the Hotel Radisson, Minneapolis. The president, Mrs. J. A. Thabes, Sr., of Brainerd, presided.

Members of the Hennepin County Medical Auxiliary were hostesses to all visiting women at a tea and reception held in the Woman's Club of Minneapolis on Monday afternoon.

Many physicians and their wives enjoyed the evening at the Hotel Radisson Ballroom on Monday night.

On Tuesday, the twenty-sixth annual meeting of the Woman's Auxiliary was held in the East Room of the Curtis Hotel, Mrs. Thabes presiding. Mrs. Frederick Schaaf, president of the Hennepin County Medical Auxiliary, welcomed those attending and invited them to attend the various functions which had been planned for all guests. Mrs. S. S. Hesselgrave responded and thanked Mrs. Schaaf and the Hennepin County Auxiliary for their hospitality.

Annual reports of chairmen, officers and county auxiliary presidents followed. Mrs. Harold Wahlquist,

president-elect, reported twenty-six organized counties and six counties still unorganized with several planning organizational meetings in the fall. Minnesota now has 1,632 members, of which 214 are new members.

The following officers were elected: President-elect, Mrs. H. E. Bakkila, Duluth; First Vice President, Mrs. Charles W. Waas, St. Paul; Second Vice President, Mrs. John Dordal, Sacred Heart; Third Vice President, Mrs. T. N. Fleming, St. Cloud; Fourth Vice President, Mrs. Ernest M. Hammes, St. Paul; Recording Secretary, Mrs. W. A. Merritt, Rochester; Treasurer, Mrs. George Penn, Mankato, and Auditor, Mrs. Henry W. Quist, Minneapolis.

It was voted unanimously to collect a sum from all County Auxiliaries to be turned into the State Auxiliary for the Dr. William A. O'Brien Memorial Fund.

The annual luncheon was held in the Wedgewood Room of the Curtis Hotel. Mrs. Thabes presented the newly elected officers. Mrs. Martin Nordland of Minneapolis presented the president's pin to Mrs. Harold Wahlquist who outlined Auxiliary objectives for the coming year. She also read the following communication from the Council of the Minnesota State Medical

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WOMAN'S AUXILIARY

Association: "The Council approved a budget for the expenses involved in conducting a two-day School of Instruction this fall for county presidents and committee chairmen of the Auxiliary who will assume leadership in the development of Public Health Days throughout Minnesota from a planning and public relations standpoint. It also approved the expenses involved in sending out a quarterly News Letter to Auxiliary members."

Mrs. J. M. Neal, Program Chairman, of Minneapolis introduced the guest speaker, Dr. Stewart C. Thomson, Associate Professor, School of Public Health, University of Minnesota, whose topic was "Man's Fight Against Disease."

At the banquet of the State Association on Tuesday evening, Dr. Ralph Creighton, president of the Hennepin County Medical Society, presided and presented Mrs. Wahlquist who addressed the group.

The traditional breakfast given at ten o'clock on Wednesday morning by the members of the Hennepin County Auxiliary was a fine social climax to a busy three days. Everyone enjoyed the spontaneity with which Mrs. Leonard Arling read for us.

Members of the State Auxiliary are grateful to their gracious hostesses of Hennepin County for the charming and generous hospitality extended during their stay in Minneapolis.

MRS. HAROLD SATTERLEE
Retiring Secretary

FALL ACTIVITIES

The Board members of the Woman's Auxiliary began making ambitious plans for an extremely busy year at the post-convention Board meeting in June. Details are being completed for a two-day School of Instruction in September and Area Health Days which are being co-sponsored by the Auxiliary, the Minnesota State Medical Association and the State Department of Health. The Health Days will be similar to the one held at Worthington last February with round-table discussions, health movies, exhibits and an evening address by the Governor. Wives of physicians in all communities will be in key positions assisting with promotional plans.

The School of Instruction to be held September 24 and 25 at the Radisson Hotel in conjunction with the fall Board session for representatives of the twenty-six organized counties is a new experiment. The program will be planned to assist members in knowing how to relate themselves better as wives of physicians and leaders in health to their communities. Round-tables on community health planning, legislation, rural health problems will be conducted by experts in their field, including Dr. Gaylord Anderson, Director of the School of Public Health, Dr. John O. Christianson, Superintendent of the School of Agriculture, both of the University of Minnesota, Mr. L. W. Rember, Executive Assistant in charge of Public Relations, AMA, and Mrs. Luther H. Kice, President of the Woman's Auxiliary to the American Medical Association. The State Association is graciously and indispensably assisting with details.

The MSMA is providing the Auxiliary Board two

means to keep auxiliary members informed this year, and to be a good auxiliary member one must be informed. Every month we shall have a page in MINNESOTA MEDICINE. This is journal copy number one. In addition, the Association is generously underwriting a quarterly News Letter. Members received the first copy in August.

MRS. HAROLD F. WAHLQUIST
President

MRS. JAMES BLAKE

It is with deep regret that the Woman's Auxiliary of the Minnesota State Medical Association announces the death of Mrs. James Blake of Hopkins, which occurred at her home on Wednesday, July 21, following a heart attack.

The Auxiliaries of the Hennepin County Medical Society, the Minnesota State Medical Association and the American Medical Association have lost a valuable friend and counselor. Mrs. Blake was a past president of all three organizations. A pioneer and civic leader in her community, Mrs. Blake, although an invalid for four years previous to her death, did not allow her illness to lessen her enthusiasm for Auxiliary work. Those who sought her advice valued her wisdom and sound judgment.

Agnes MacDonald Blake was born in Mankato on December 16, 1878, where she attended school. She was graduated from Mankato State Teachers College and later taught in New Ulm. She was married to Dr. James Blake of Hopkins on June 20, 1904, and resided in Hopkins until her death.

Mrs. Blake was devoted to her family, although her efficiency and boundless energy enabled her to become a leader in community affairs. Not only did she devote considerable time to social and professional phases of Auxiliary work, but she also was a leader in the Minnesota Federation of Women's Clubs, in the Public Health and Nursing movements, and, during both World Wars, in Red Cross and war relief work.

Following World War I Mrs. Blake organized a civic-betterment group, the Agnes Blake Study Club, which was responsible for many improvements in recreation, park and civic facilities for Hopkins.

In spite of her many achievements in public life, Mrs. Blake was primarily a homemaker. She had six children: two daughters—Jeannette, a nurse at the Veterans Hospital, and Mrs. Charles Adams of Springfield, Illinois, and four sons—James A., Allen, and Paul, all physicians practicing in Hopkins, and Donald, who was killed while serving in the United States Army, stationed in California.

The Auxiliary extends its deepest sympathy to Doctor James Blake and his family. The keen loss which they feel is shared by every member of the organization. The vacancy created by her passing will be indeed difficult to fill.

MARIE E. HESSELGRAVE
MINNESOTA MEDICINE

In Memoriam

HERBERT BENJAMIN ALLEN

Dr. H. B. Allen, chief physician for the George A. Hormel Company at Austin, Minnesota, died suddenly, August 24, 1948. He was forty-one years of age.

Born in Slayton, Minnesota, September 20, 1906, he was brought up in Staples where he attended grade and high school. He graduated from the University of Minnesota Medical School in 1937 and became associated with the Hormel Packing Plant the same year.

Dr. Allen is survived by his wife, Marion, and daughter, Lani. A brother, Frank Allen, lives in Duluth and a sister in Minneapolis.

LUTHER NOBLE BERG

Dr. L. N. Berg of Montevideo, Minnesota, passed away on June 2, 1948, at the age of sixty-seven.

Dr. Berg was born September 27, 1880, in Yellow Medicine County, Minnesota. He received a B.A. degree from Augsburg College, Minneapolis, in 1902 and his medical degree from the University of Minnesota in 1906. He interned at Ancker Hospital, Saint Paul.

He was a member of the Camp Release District Medical Society, the Minnesota State Medical Association and American Medical Association.

ARTHUR J. G. HENDERSON

Dr. Arthur J. G. Henderson, formerly of Kiester, Minnesota, died of a heart attack on May 16, 1948, at his home in North Saint Paul.

Dr. Henderson was born at Lake Mills, Iowa, on May 3, 1894. He attended St. Olaf College and the University of Minnesota before obtaining his medical degree at the University of Illinois in 1919. His internship was served at the Swedish Hospital in Minneapolis.

He was a member of the Blue Earth Valley Medical Society, the Minnesota State Medical Association and American Medical Association.

THEODORE HOLTAN

Dr. Theodore Holtan passed away at his home in Waterville, Minnesota, August 22, 1948, at the age of sixty-five, following a heart attack.

Dr. Holtan was born in Forest City, Iowa, April 8,

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IN MEMORIAM

1883. He attended Decorah Institute at Decorah, Iowa, and Hamline University, Saint Paul, before obtaining his medical degree at Marquette University, Milwaukee, in 1911. After interning at Asbury Hospital, Minneapolis, he practiced at Wheaton, Minnesota, from June, 1912, to February, 1918, and then at Kilkenny, Minnesota, until September, 1921. For the past twenty-seven years, he has been practicing his profession in Waterville.

Dr. Holtan was a member of the Nicollet-LeSueur Medical Society, the Minnesota State and American Medical Associations.

He leaves to mourn, his wife and two sons.

JAMES S. REYNOLDS

Dr. James S. Reynolds, former president of Hennepin County Medical Society, and specialist in eye, ear, nose and throat, met an untimely death July 7, 1948, at his country home where he and Mrs. Reynolds were victims of a double murder committed by Mrs. Reynolds' brother.

Dr. Reynolds was born March 15, 1880, at New Hampton, Iowa. He attended Ames College, Iowa, and received his medical degree from the University of Minnesota in 1905. He was a member of the American Medical Association, Minnesota State Medical Association, Hennepin County Medical Society, Minnesota Academy of Ophthalmology and Otolaryngology, of which he was president 1934-35, and a fellow of the American College of Surgeons. Socially, he was a member of Phi Beta Pi fraternity, Rotary Club, University Blue Lodge, Zuhrah Temple of the Shrine, and a Scottish Rite Mason of the highest degree.

"Jim," as everybody called him, was held in high esteem, both personally and professionally, by all who knew him. He was a man among men. He was chief of the eye, ear, nose and throat section at St. Barnabas Hospital, and his passing will be deeply felt.

He is survived by a sister, Mrs. Maude Glazier of New Hampton, Iowa.

ADOLPH A. PASSER

Dr. Adolph A. Passer of Olivia died of a cerebral hemorrhage on August 18, 1948. He was sixty-eight years of age.

Dr. Passer was born at Luverne, Minnesota, on January 3, 1880, the son of the Rev. Ludvig Passer. He obtained an A.B. degree from the University of Minnesota in 1902.

From 1902 to 1904, he was employed as high school teacher in Waseca, and from 1904 to 1907 he held a similar position at Virginia. During the next year he was employed as a drug store clerk at St. Cloud. In 1908, he returned to the University where he graduated in medicine in 1912. His internship was served at Minneapolis General Hospital.

He was a member of Renville County Medical Society and the Minnesota State and American Medical Associations. He was also a member of the local Masonic Lodge.

One of Olivia's prominent citizens and a practitioner there for thirty-five years, Dr. Passer was always active in civic and medical affairs. From 1920 to 1923, he served as president of the village council and, from 1913 to 1923, as county coroner. He was health officer for Olivia and Renville County for many years. He was also a county draft board member in the first World War and was examining physician for the Selective Service in the last war.

On May 15, 1913, Dr. Passer was married to Irene Monk, who survives him.

Dr. Passer was an able physician and his gentle and friendly manner endeared him to his many friends and acquaintances.

GEORGE E. VAUGHAN

Dr. George E. Vaughan of Winnebago, Minnesota, died May 31, 1948, from a pulmonary embolism following an operation at Rochester.

Dr. Vaughan was born September 14, 1865, in Lansing, Minnesota. He attended Pillsbury Academy, the University of Minnesota Medical School and the University of Chicago Medical School.

He began practice in Winnebago in 1907 and continued practice until his retirement in 1939. He is survived by two sons, C. C. Vaughan of Minneapolis and Dr. V. M. Vaughan of Truman, Minnesota.



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Of General Interest

Dr. Peter J. Kitzberger has become associated with Dr. R. V. Fait, Dr. D. L. Johnson and Dr. F. C. Anderson in a clinic in Little Falls.

* * *

Dr. C. G. Kelsey, for many years a practitioner in Hinckley, retired from active medical practice during the first week of July.

* * *

In July, at the age of seventy-one, Dr. J. T. Schlesselman of Mankato completed a half-century of general practice in medicine.

* * *

Among European travelers this summer was Dr. M. Berenice Moriarity, Saint Paul, who visited in England, Ireland and Scotland.

* * *

Dr. Norvin R. Smith announces the removal of his offices from 203 Loring Medical Building to Suite B, 1600 West Lake Street, Minneapolis.

* * *

Speakers from Minnesota at the Fall Clinical Conference of the Wells County Medical Society at Bluffton, Indiana, September 15, are Dr. J. Arnold Bargen of Rochester and Dr. Hamlin Mattson of Minneapolis.

Dr. A. Gordon Goude became associated in practice with Dr. C. J. Martinson of Wayzata during July. Dr. Goude replaces Dr. Roy W. Sorensen, who has moved to California.

* * *

In Hopkins (Minneapolis) Dr. A. C. Stahr expects to be able to move into his new office building in November. The building is now in the process of construction.

* * *

As guest speaker before the Rotary Club in Rochester on July 15, Dr. Viktor O. Wilson, city health officer, presented a talk on "Rochester's City Health Departments."

* * *

Dr. and Mrs. Hugh Beals, Saint Paul, sailed on the *Queen Mary* for Europe early in August. They planned to spend two months visiting the Scandinavian countries and England.

* * *

"Medicine and Diseases with New and Improved Methods of Treatment" was the title of a talk given by Dr. Frank J. Hirschboeck, Duluth, at a meeting of the Duluth Rotary Club on August 12.

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Surgical Technique, Surgical Anatomy and Clinical Surgery, four weeks, starting October 11, November 8.
Surgical Anatomy and Clinical Surgery, two weeks, starting September 27, October 25, November 22.
Surgery of Colon and Rectum, one week, starting October 18, November 15.
Surgical Pathology every two weeks.
FRACTURES AND TRAUMATIC SURGERY—Intensive Course, two weeks, starting October 25.
GYNECOLOGY—Intensive Course, two weeks, starting October 11.
Vaginal Approach to Pelvic Surgery, one week, starting October 25.
OBSTETRICS—Intensive Course, two weeks, starting October 25.
UROLOGY—Intensive Course, two weeks, starting September 27.
MEDICINE—Intensive Course, two weeks, starting October 11.
Personal Course in Gastroscopy, two weeks, starting September 27, November 8.
Gastroenterology, two weeks, starting October 25.
Hematology, one week, starting October 4.
DERMATOLOGY—Formal Course, two weeks, starting October 4.
Clinical Course every two weeks.
OPHTHALMOLOGY—Intensive Course, two weeks, starting September 20.
Refraction Methods, four weeks, starting October 11.
Ocular Fundus Diseases, one week, starting November 15.
OTOLARYNGOLOGY—Intensive Course, two weeks, starting October 18.
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OF GENERAL INTEREST

Dr. Isadore Fisher has become associated with Dr. Harry A. Cummings in the practice of Dermatology and Syphilology, with offices at 1218 Medical Arts Building, Minneapolis.

* * *

Dr. W. A. Coventry of Duluth is one of four physicians appointed by the AMA Trustees to a liaison committee to work with the American Red Cross in studying the national blood bank program.

* * *

Formerly of Ceylon, Dr. I. Fisher has announced his association in practice with Dr. Harry A. Cumming, with offices at 1218 Medical Arts Building, Minneapolis. Dr. Fisher's practice will be limited to dermatology and syphilology.

* * *

Dr. William Roemmich, tuberculosis control officer of the Minneapolis Health Department, took part in a panel discussion at Saratoga Springs, New York, on July 21. He presented an analysis of information collected in the Minneapolis x-ray survey.

* * *

Dr. Henry W. Meyerding, Rochester, attended the fourth congress of the International Society of Orthopaedic Surgery and Traumatology held in Amsterdam, Netherlands, September 13 to 18. Dr. Meyerding acted as presiding officer of the congress.

* * *

During the latter part of July, Dr. Thomas J. Dry, Rochester, was a speaker at a meeting of the Red River

Valley Medical Society in Thief River Falls. Dr. Dry spoke on "The Differential Diagnosis of Congenital Cardiac Defects Amenable to Surgical Treatment."

* * *

It was announced on July 29 that Dr. Thomas G. Boisclair, of Milwaukee, had become associated in practice with Dr. Arnold Larson in Detroit Lakes. A graduate of George Washington University Medical School, Dr. Boisclair served his internship at Emergency Hospital, Washington, D. C.

* * *

Braham acquired a new physician on July 1 when Dr. E. F. Beyer arrived from Saint Paul to become associated in practice with Dr. W. T. Nygren. Dr. Beyer, a graduate of the University of Minnesota Medical School, served his internship at Miller Hospital, Saint Paul.

* * *

After thirty-four years of practice in Keewatin, Dr. E. H. Loofbourrow announced his retirement from active medical practice early in August. On August 14, residents of Keewatin and the surrounding area held a reception in honor of Dr. Loofbourrow and presented him with a gift of appreciation.

* * *

Alumni and graduating nurses of the Wesley Hospital training course in Wadena gathered on the evening of June 29 to express appreciation and gratitude to Dr. J. S. Grogan of Wadena who had recently retired from active medical practice. The group presented Dr. Grogan with a combination radio-phonograph.

* * *

After completing his internship this summer at the University of Indiana Medical Center, Indianapolis, Dr. William Lovshin, formerly of Chisholm, accepted a position on the staff of the More Hospital in Eveleth. Dr. Lovshin is a graduate of the University of Wisconsin Medical School.

* * *

Forty-four newly arrived Mayo Foundation Fellows were welcomed to Rochester at a banquet held in the Mayo Foundation House on July 12. Principal speaker for the occasion was Dr. W. E. Herrell, head of a medical section in the Mayo Clinic. Dr. C. P. Blunt acted as toastmaster.

* * *

A native of Mankato, Dr. Joseph C. Von Drasek has returned there to become associated in practice with Dr. Roger G. Hassett at the Mankato Medical Center. Dr. Von Drasek was graduated from the University of Minnesota Medical School in 1946 and served his internship at St. Mary's Hospital in Duluth. He was a resident physician at Midway Hospital, Saint Paul, for one year.

* * *

During the summer Dr. Lyle Benson, who had just completed two years of service at the Veterans Hospital in St. Cloud, became a staff member of the Hoidale-Workman Clinic in Tracy. A graduate of the University of Minnesota Medical School, Dr. Benson served his internship at Minneapolis General Hospital before going on active duty in the army.

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In Isanti on July 12, Dr. F. A. Lengby, a former resident of Saint Paul, opened offices for the practice of medicine. A graduate of the University of Minnesota Medical School, Dr. Lengby interned at Bethesda Hospital, then served overseas in the army. For a short time last spring Dr. Lengby assisted Dr. W. T. Nygren of Braham.

* * *

The University of Minnesota Medical School has been named as a residual beneficiary of the \$150,000 estate of the late Dr. James S. Reynolds of Minneapolis. The estate is to be placed in trust for Dr. Reynold's sister, upon whose death the remainder of the estate is to be used as a scholarship fund in the University Medical School.

* * *

"Mental Hygiene and Education" was the title of a radio talk given by Dr. Harold B. Hanson, Minneapolis, over Station WREX, Duluth, on August 10. Dr. Hanson, a psychiatrist, is director of the Child Guidance Clinic of the Minneapolis Public School System. The radio program was sponsored by the Duluth branch of the American Association of University Women.

* * *

Dr. Abraham Shedlov is retiring from active practice, after twenty-eight years of service as a physician, and will make his home in Long Beach, California, where he will be established after October at 1038 Harding Street. Dr. Shedlov's practice at Fosston, Minnesota, will be taken over by Dr. Hartvig Roholt, formerly of Waverly, Minnesota.

* * *

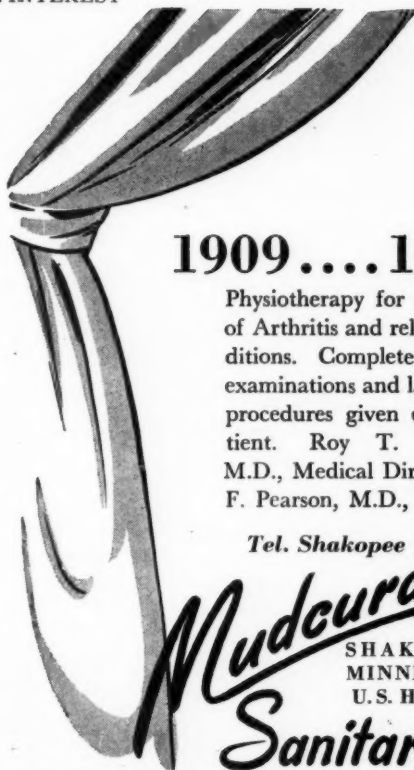
Announcement has been made that Dr. G. J. Plattes, a former St. Cloud resident, is now associated in practice with Dr. A. F. Giesen in the Minnewaska Clinic in Starbuck. Dr. Plattes, a graduate of the University of Minnesota Medical School in 1944, spent two years at Harper Hospital in Detroit, Michigan, before becoming a medical officer in the navy. Following his discharge from service, he was on the staff of Minneapolis General Hospital.

* * *

Speaking at a convention in July of the American Association of Workers for the Blind, Dr. William L. Benedict, head of the Mayo Clinic Ophthalmology Section, stated that of 419 cornea-transplant operations performed at five eastern hospitals over a five-year period, only 36.4 per cent were successful. The main cause of failure, he said, was that many of the corneal transplants did not remain clear for more than a few months.

* * *

A new staff member of the Interstate Clinic in Red Wing is Dr. Winston R. Miller, who on August 2 became associated with Dr. R. V. Sherman in the department of internal medicine. A graduate of the University of Kansas, where he received M.S. and M.D. degrees and also taught bacteriology for four years, Dr. Miller served in the navy for three years during the war. Following his discharge from service, he was on the medical staff of Henry Ford Hospital in Detroit, Michigan.



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Dr. Chester A. Anderson, after practicing in Winsted for two years, took over the practice of Dr. Ralph Erickson in Hector on August 15. Dr. Erickson, who has practiced in Hector for ten years, is retiring from active practice and is moving to San Francisco. Dr. Anderson located at Winsted two years ago after serving in the armed forces for two years in the European Theater of Operations.

* * *

Dr. John C. Hays has opened offices at 936 Lowry Medical Arts Building, Saint Paul, for the practice of internal medicine. Dr. Hays graduated from the University of Minnesota in 1943, and took an internship and a year of residency at the Minneapolis General Hospital. After serving in the Medical Corps of the Army for a year and a half, he completed his residency at the U. S. Veterans Hospital in Minneapolis.

* * *

Dr. Olaf Mickelsen, associate professor in the University of Minnesota's laboratory of physiological hygiene, has resigned his position to become chief of the biochemical section in the United States Public Health service nutrition division in Washington, D. C. Dr. Mickelsen has been on the staff of the University of Minnesota since 1940. He will begin his new duties in Washington at once.

* * *

The American Medical Association is building a five-story addition to its headquarters at 535 North Dearborn Street, Chicago. The addition will cost \$500,000 and will add about 25 per cent more floor space. Two stories were added in 1936 to the original six-story structure built in 1923, and a three-story wing was added in 1941. Further additional space is required to house the additional activities of the Association.

* * *

Dr. Troy Rollins arrived in Elmore on July 1 to join Dr. Harry Shrugg and complete the transfer of the former practice of Dr. A. W. Sommer. The practice, which Dr. Rollins and Dr. Shrugg acquired from Dr. Sommer, was conducted alone by Dr. Shrugg from Jan-

uary to July, awaiting the completion of Dr. Rollin's internship at Ancker Hospital, Saint Paul. Dr. Sommer is now practicing in Temple, Texas, serving as radiologist with the Scott-White Clinic.

* * *

It was announced in July that two recent University of Minnesota graduates planned to open a medical-dental clinic in Fairmont on September 1. The physician-dentist team is composed of Dr. Jerome L. Behounek, formerly of Marshall, who graduated from the University of Minnesota Medical School in 1945, and Dr. Russell J. Kotval, formerly of Livermore, Iowa, who received his dental degree at the University School of Dentistry this past spring.

* * *

On July 18, Dr. Gunnar Linner announced the opening of new offices at 6614 Lyndale Avenue S., Richfield (Minneapolis). A graduate of the University of Minnesota Medical School, Dr. Linner practiced in south Minneapolis until 1940, when he entered the army. After two years overseas he returned to the United States and served as hospital commander at Camp Ellis, Fort Lewis and Camp McCoy. He was on active duty for seven years.

* * *

In a presentation ceremony sponsored on July 14 by the Lions and Rotary Clubs of St. Peter, Dr. F. P. Strathern, president of the Nicollet County Board of Health, was honored for his services in the fight against tuberculosis. At the ceremony a plaque was presented to him by Dr. E. A. Meyerding, executive secretary of the Minnesota Public Health Association. Dr. Strathern has practiced medicine for nearly fifty years and has headed the Nicollet County Christmas Seal drive for twenty-five years.

* * *

Dr. Gaylord W. Anderson, director of the University of Minnesota School of Public Health, returned to Minneapolis during the middle of July from an eight-week "good will" tour of South American schools of public health. The tour was under the auspices of the U. S. State Department. As a secretary of the Association of the Schools of Public Health in the U. S., Dr. Anderson visited and lectured at schools in Brazil, Argentina and Chile.

"South American doctors," he reported, "are grappling principally with health worries such as tuberculosis, intestinal diseases, nutrition and housing."

* * *

Dr. Magnus C. Peterson has returned to his office as superintendent of the Rochester State Hospital, following a sojourn overseas.

During the past two months Dr. Peterson has visited mental hospitals in Denmark, Sweden and Portugal and presented a paper at the first international conference on psychosurgery held in Lisbon, Portugal, August 3 through 7.

Presentation of the paper at the conference was his main reason for going to Europe. Entitled "Pre-frontal



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Lobotomy," the paper was prepared in collaboration with Dr. J. Grafton Love of the Mayo Clinic.

* * *

Dr. Alexander Dumas, clinical assistant professor of psychiatry and neurology at the University of Minnesota, presented the second in a series of radio talks on mental health over Station WREX, Duluth, on July 27. Dr. Dumas spoke on "The Nature and Extent of the Problem." The third talk in the series was given on August 3 by Dr. Roger W. Howell, clinical assistant professor of psychiatry at the University of Minnesota, who spoke on "The Nature and Causes of Mental Illness." The radio series is sponsored by the American Association of University Women as part of a statewide education program.

* * *

Mrs. James Blake, the wife of Dr. James Blake of Hopkins (Minneapolis) and a prominent leader in medical auxiliary affairs, died at her home on July 21. A resident of Hopkins since her marriage in 1904, Mrs. Blake was active in auxiliary work at county, state and national levels. Several years ago she was president of the American Medical Association Auxiliary.

She is survived by her husband; by three sons, Dr. James A. Blake and Dr. Allan Blake, both of Hopkins, and Dr. Paul Blake, stationed at a veterans' hospital; and by two daughters, Mrs. Charles Adams, a nurse in Springfield, Illinois, and Jeanette Blake, of Hopkins. A fourth son, Donald, was killed in service during World War II.

* * *

Dr. Cassius J. Van Slyke has been appointed Director of the National Heart Institute, one of the Institutes of Health in the U. S. Public Health Service. The National Heart Institute was created by Congress in the National Heart Act enacted June 16, 1948. Its program will include the conduct of research, financial aid to outside institutions for research, training of professional personnel and grants-in-aid to the states for heart disease control. Headquarters will be at the National Institute of Health, Bethesda, Maryland. Dr. Van Slyke received his medical degree from the University of Minnesota in 1928 and a commission in the Public Health Service in 1932. Assignments include experimental research at the Venereal Disease Research Laboratory at Stapleton, Staten Island. Since 1945 he has been in charge of the research grants-in-aid and fellowship program of the National Institute of Health.

* * *

Announcement was made in late July that two additional physicians would join the staff of the Austin Clinic in the near future.

Dr. Thomas M. Seery, a graduate of the University of Minnesota Medical School in 1942, planned to arrive in Austin on October 1. Dr. Seery interned at Minneapolis General Hospital and then spent three years in military service. Since receiving his discharge he has studied internal medicine at the Milwaukee County General Hospital and the University of Minnesota Hos-

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pitals. In addition to his medical degree, he has a Minnesota master of science degree in pharmacology and bacteriology.

The other physician, Dr. Edward C. Sargent, Jr., will arrive in Austin about January 1, 1949. A graduate of Western Reserve University, in Cleveland, and a veteran of three years of naval service, Dr. Sargent is now completing a term as senior resident in obstetrics and gynecology at the University of Minnesota Hospitals. In Austin his practice will be limited to his specialty.

* * *

BLUE SHIELD NEWS

Number persons covered by Blue Shield, July 31, 1948—34,526
Applications received to date listed over 49,000
Number Blue Shield cases paid, July 15—July 31, 1948— 228
Total for 1948— 1,053
Amount paid on Blue Shield cases, July 15—
July 31, 1948—\$ 9,401.45
Total for 1948— 39,574.84

In July, 1948, the Minnesota Blue Shield completed its sixth month of making allowances on Blue Shield cases. At that time a six-month survey was made, and some rather interesting facts and figures were obtained. Of the 832 professional services for which allowances were made, only thirty-five were for appendectomies; however, this accounted for the largest allowance for any surgical procedure, \$2,668.75. The greatest number of claims were paid for the removal of tonsils and adenoids. This procedure totaled forty-nine cases in the amount of \$1,563.75 (5.20 per cent of all allowances made).

The largest allowance made was \$6,727.89 (22.38 per cent) for medical care received by Blue Shield subscribers and dependents who were hospitalized. The attending physician received on the average of \$22.57 for each medical case. It is interesting to note that in talking with physicians throughout the state and also

with business managers of clinics, it has been stated that the Blue Shield allowance for medical care on the average is more than the physician's usual charge. This is very gratifying. On the other hand, the charges for surgery are greater than the Blue Shield allowance; however, the medical and surgical allowances compensate for each other.

The average amount paid on Blue Shield cases of all types—that is, medical care, surgery, maternity, fractures, x-rays, and anesthesia was \$38.55. This may not seem like very much, but when it is considered that the largest percentage of cases were for minor surgery this is not too low a figure.

In the last six months only fifty-eight non-participating doctors of medicine have received allowances for services rendered Blue Shield subscribers. This would indicate that the greater percentage of the physicians in Minnesota are now participating with Blue Shield.

Blue Shield enrollment of subscribers is progressing very well. In the month of July, the Blue Shield—Blue Cross representatives brought in almost 4,500 new applications. That, to date, is the largest number obtained in any one month. Also Blue Shield is now available to all Blue Cross subscribers who are on a bill-direct basis. There have been many requests for this type of coverage, and it is felt that now is the proper time to start it off. This will net the Blue Shield many more subscribers.

Physicians are pleased with the small amount of bookwork involved in Blue Shield cases and with the simplicity of Blue Shield forms which merely request that the diagnosis and type of service rendered be given and that the form be completed by the doctor's signature. Blue Shield, as it is growing, needs the help and cooperation of every doctor in the state, and, without a doubt, is receiving it.



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BOOK REVIEWS

BOOK REVIEWS

Books listed here become the property of the Ramsey, Hennepin and St. Louis County Medical Libraries when reviewed. Members, however, are urged to write reviews of any or every recent book which may be of interest to physicians.

BOOKS RECEIVED FOR REVIEW

ESSENTIALS OF PATHOLOGY. Third Edition. Lawrence W. Smith, M.D., F.A.C.P. Formerly Professor of Pathology, Temple University School of Medicine; Associate Professor of Pathology, Cornell University Medical School and Assistant Professor of Pathology, Harvard Medical College; Corresponding Member of the Royal Flemish Medical Academy of Belgium; and Edwin S. Gault, M.D., F.A.C.P., Associate Professor of Pathology and Bacteriology, Temple University School of Medicine. Foreword by the late James Ewing, M.D. 764 pages. Illus. Price \$12.00, cloth. Philadelphia: The Blakiston Company, 1948.

PREOPERATIVE AND POSTOPERATIVE CARE OF SURGICAL PATIENTS. Hugh C. Ilgenfritz, A.B., M.D., F.A.C.S. Formerly Assistant Professor of Surgery, Louisiana State University School of Medicine, and Visiting Surgeon, Charity Hospital of Louisiana at New Orleans. 898 pages. Illus. Price \$10.00, cloth. St. Louis: C. V. Mosby Co., 1948.

HANDBOOK OF ORTHOPAEDIC SURGERY. Third edition. Alfred Rives Shands, Jr., B.A., M.D. Medical Director of the Alfred I. duPont Institute of the deNemours Foundation, Wilmington, Delaware; Visiting Professor of Orthopaedic Surgery, University of Pennsylvania School of Medicine, Philadelphia, in collaboration with Richard Beverly Raney, B.A., M.D., Associate in Orthopaedic Surgery, Duke University School of Medicine, Durham, N. C.; Lecturer in Orthopaedic Surgery, University of North Carolina School of Medicine, Chapel Hill, N. C. 574 pages. Illus. Price \$6.00, cloth. St. Louis: C. V. Mosby Co., 1948.

MICROBIOLOGY AND PATHOLOGY. Fourth Edition. Charles F. Carter, B.S., M.D. Instructor in Pathology and Applied Microbiology, Parkland Hospital School of Nursing, Dallas, Texas; Director Carter's Clinical Laboratory, Dallas; Consulting Pathologist, St. Louis Southwestern Railway Hospital, Texarkana, Arkansas; Consulting Pathologist Mother Frances Hospital, Tyler, Texas; Formerly Director of Laboratories, Parkland Hospital. 845 pages. Illus. Price \$5.00, cloth. St. Louis: C. V. Mosby Co., 1948.

MEDICAL WRITING. The Technique and Art. Second Edition. Morris Fishbein, M.D., Editor, The Journal of the American Medical Association. With the assistance of Jewel F. Whelan, Assistant to the Editor. 292 pages. Illus. Price \$4.00, cloth. Philadelphia: The Blakiston Co., 1948.

Though Dr. Fishbein's latest book may not teach all physicians how to write perfect scientific papers, its suggestions will help any medical writer to produce a manuscript that has a better chance of being published and a far better chance of being carefully read.

Too many articles submitted to medical journals, the book points out, are merely typed copies of papers that were presented before medical societies. They were good for opening a discussion or for filling an entire evening's program. For publication, however, they need a thorough revision. Often they are verbose, ungrammatical, poorly organized and full of nonessential material. They usually are returned to the author with a polite note. Unfortunately, however, since medical journals have pages to fill and enough good papers are sometimes lacking, such manuscripts seem to appear in print fairly frequently. They are read infrequently.

An attempt to change this situation—to show writers how to prepare better papers—is made by Dr. Fishbein in this book.

Throughout the book, Dr. Fishbein makes good use of the teaching technique of indicating what *not* to do.

He illustrates his points with sentences, paragraphs and photographic material taken from manuscripts submitted to the *Journal of the AMA*. He offers general rules and analyzes specific details. He states that case reports should not be jerky telegraphic transcripts from original record sheets, and that they should not contain unimportant and irrelevant observations. Medical jargon should not be used; there is no such thing as an "acute abdomen" or a "right heart." Ordinary nouns should not be made into verbs, as is often done in medical writing: "Astronomers never telescope the sky; bacteriologists never microscope their slides; but urologists do not hesitate to cystoscope their patients."

In addition to describing what the potential author should not do, Dr. Fishbein gives sound advice on how to prepare a manuscript and how to revise it; how to select and prepare illustrations, tables and charts; how to use abbreviations, arrange bibliographic material, compile an index; and how to correct proofs so that both author and printer know what is meant.

The style advocated by Dr. Fishbein for spelling, capitalization, punctuation, et cetera, is that used by the American Medical Association Press. Other editors and publishing houses may prefer different styles. Yet, a medical writer, no matter to what publication he plans to submit his paper, could do worse than to follow the AMA style described in this book. It is clear, simple and consistent, and any desired variations in it could be made easily by the copy editors of individual publications.

All in all, practically every medical writer can learn something from this book. A thorough reading of it and an observance of its suggestions should enable any scientific writer to improve his future manuscripts, and, as a result, allow medical editors to lead far more enjoyable lives.

J. H. L.

CARCINOMA OF THE BREAST

(Continued from Page 1021)

References

1. Adair, Frank E.: The results of treatment of mammary carcinoma. *Ann. Surg.*, 95:410-424, (March) 1932.
2. Bell, E. T.: *Textbook of Pathology*. Philadelphia: Lea and Febiger, 1944.
3. Bittner, John J.: Experimental breast cancer. *Mod. Med.*, (Apr. 15) 1945.
4. Campbell, Orwood J.: The bleeding nipple. *Surgery*, 19: 40-46, (Jan.) 1946.
5. Geschickter, Charles F.: *Diseases of the Breast*, 2nd Edition. Philadelphia: J. B. Lippincott Company, 1945.
6. Goldman, Leonard B.: Cancer prevention clinic. *J.A.M.A.*, 135:276-278, (Oct. 4) 1947.
7. Haagensen, C. D.: The technique for radical mastectomy. *Surgery*, 19:100-131, (Jan.) 1946.
8. Harrington, Stuart W.: Results of radical mastectomy in 5026 cases of carcinoma of the breast. *Pennsylvania M. J.*, 43:413-427, (Jan.) 1940.
9. Harrington, Stuart W.: Survival rates of radical mastectomy for unilateral and bilateral carcinoma of the breast. *Surgery*, 19:154-166, (Jan.) 1946.
10. Joffe, Harold H. and Wells, Arthur H.: A review of 174 cases of cancer with necropsies. *Minnesota Med.*, 30:735-741, (July) 1947.
11. Kesmodel, Karl F.: Carcinoma of the breast. *South. M. J.*, 40:43-46, (Jan.) 1947.
12. New test for early cancer. *Readers' Digest*, August, 1947.
13. Pack, George T., and Livingston, Edward M.: *Treatment of Cancer and Allied Disease*. New York: Paul B. Hoeber, 1940.
14. Webster, Augusta: Experience with the Chicago Cancer Detection Center. Symposium on Cancer Clinics and Cancer Detection Centers. American College of Surgeons, 1947.
15. X-Ray News, 19:No. 9, (Sept.) 1947.

Classified Advertising

Replies to advertisements should be mailed in care of MINNESOTA MEDICINE, 2642 University Avenue, Saint Paul 4, Minn.

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